Table of Example* UCUM codes for Electronic Messaging - version 1.5
6/2020

Preface to Table of Example UCUM Codes for Electronic Messaging

Attached is an enumeration of The Unified Code for Units of Measure (UCUM), designed to make it clear what the UCUM syntax would produce for specific unit patterns in electronic communication. This early version, composed in a relatively short time frame, is based on content provided by Intermountain Healthcare, from a National Library of Medicine/Regenstrief Institute project that is analyzing raw units from more than 23 laboratory sources and their translation to UCUM (http://unitsofmeasure.org/) and from the HL7 table of units. In this version we have not included all of the content from all of these sources. Specifically for this version, we excluded units for which we could not quickly find definitions or clear patterns of usage, units of measure that we believed would only be used in pharmacy dispensing, and units used for purely clinical reporting (e.g. cigarette pack-years). We have included most of the pure metric units that were in the source table whether they apply directly to the laboratory or not because they will be generally useful and because we could not always be sure what should be excluded.

We have included a row number in the first column of the table. Please use this number when suggesting changes or identifying problems with a given term. This number has no significance beyond identifying a unique row in this table. In particular, it does not officially denote a UCUM code. The table is ordered alphabetically by the content of the column Description of the Unit.

Some details of the UCUM syntax follow, but for a more complete explanation than this please refer to the full UCUM specification at http://unitsofmeasure.org/.

The UCUM codes that you see in the table are mixed-case ASCII text. The standard metric units all have their usual mixed-case representation, so milligram per deciliter is portrayed in UCUM as mg/dL. US, British, and other special units are usually enclosed in square brackets, e.g. inches is [in_i] (inches international) — the "i" is needed because the British inch and the US inch were slightly different until about 1980 when all parties agreed the international inch. In UCUM a dot (.) means multiply, a number to the right of a string means a power, and the divisor sign (/) means divide. So m2 means meter squared.

Strings that are often included in units of measure but are adornments for human reading and that are not formally units of measure are enclosed in curlicue brackets {}. For example, mg/mol{creat} means milligram per mole of creatinine.

UCUM does not formally specify what to put inside of the curlicue brackets except to insist there be no spaces, because spaces will break the parser and the UCUM units converter. In principle, users could adjust the contents of any such curlicue brackets because they aren't a formal part of UCUM. In this table, we encourage the use of the same string consistently within curlicue brackets, e.g. {creat} for creatinine and {Hb} for hemoglobin. However, this is not an absolute constraint of UCUM, and, when needed, users may adjust the content within the curlicue brackets.

Beginning with Version 1.4, the Revisions Log is now an Appendix at the end of the document.

Version History (see revisions log in Appendix)
- Version 1.5, Released 06/2020
- Version 1.4, Released 07/18/2016
- Version 1.3, Released 09/26/2014
- Version 1.2, Released 02/06/2014
- Version 1.1, Released 10/04/2011
- Version 1.0, Released 09/23/2011

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
1	10.L/min	10 liter per minute
2	10.L/(min.m2)	10 liter per minute per square meter
3	10.uN.s/(cm5.m2)	10 micronewton second per centimeter to the fifth power per square meter
4	10*4/uL	10 thousand per microliter
5	10*8	100 million
6	24.h	24 hour
7	{absorbance}	absorbance
8	{activity}	activity
9	[AU]	allergy unit
10	{AHF'U}	American Hospital Formulary unit
11	A	ampere
12	A/m	ampere per meter
13	[arb'U]	arbitrary unit
14	[arb'U]/mL	arbitrary unit per milliliter
15	{ARU}	aspirin response unit
16	atm	atmosphere
17	ag/{cell}	attogram per cell
18	bar	bar
19	Bq	Becquerel
20	[beth'U]	Bethesda unit
21	10*9/L	billion per liter
22	10*9/uL	billion per microliter
23	10*9/mL	billion per milliliter

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
24	{binding_index}	binding index
25	[bdsk'U]	Bodansky unit
◊26	{breaths}/min	breaths per minute
27	{CAG_repeats}	CAG trinucleotide repeats
28	cal	calorie
29	{cells}	cells
30	{cells}/[HPF]	cells per high power field
31	{cells}/uL	cells per microliter
32	cg	centigram
33	cL	centiliter
34	cm	centimeter
35	cm[Hg]	centimeter of mercury
36	cm[H2O]	centimeter of water
37	cm[H2O]/L/s	centimeter of water per liter per second
38	cm[H2O]/s/m	centimeter of water per second per meter
◊39	cm/s	centimeter per second
40	cP	centipoise
41	cSt	centistoke
42	{delta_OD}	change in (delta) optical density
43	{clock_time}	clock time e.g 12:30PM
44	[CFU]	colony forming unit
45	[CFU]/L	colony forming unit per liter
46	[CFU]/mL	colony forming unit per milliliter
47	{CAE'U}	complement activity enzyme unit
48	{CH100'U}	complement CH100 unit
49	{copies}	copies

◊ The diamond symbol next to row number indicates addition since previous release version.

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
50	{copies}/ug	copies per microgram	76	[dr_av]	dram (US and British)
51	{copies}/mL	copies per milliliter	77	[drp]	drop (1/12 milliliter)
52	{count}	count	78	dyn.s/cm	dyne second per centimeter
53	{CPM}	counts per minute	79	dyn.s/(cm.m2)	dyne second per centimeter per square meter
54	{CPM}/10*3{cell}	counts per minute per thousand cells	80	{Ehrlich'U}	Ehrlich unit
◊55	cm3	cubic centimeter	81	{Ehrlich'U}/100.g	Ehrlich unit per 100 gram
56	[cin_i]	cubic inch (international)	82	{Ehrlich'U}/(2.h)	Ehrlich unit per 2 hour
57	m3/s	cubic meter per second	83	{Ehrlich'U}/d	Ehrlich unit per day
◊58	{Ct_value}	Cycle threshold value	84	{Ehrlich'U}/dL	Ehrlich unit per deciliter
59	d	day	85	{EIA_index}	EIA index
◊60	d/(7.d)	day per 7 day	86	{EIA_titer}	EIA titer
◊61	d/wk	days per week	87	{EIA'U}	EIA unit
62	dB	decibel	88	{EIA'U}/U	EIA unit per enzyme unit
63	dg	decigram	89	{EV}	EIA value
64	dL	deciliter	90	eV	electron Volt
65	dm	decimeter	91	{ELISA'U}	ELISA unit
66	deg	degree (plane angle)	92	U	enzyme unit
67	Cel	degree Celsius	93	U/10	enzyme unit per 10
68	[degF]	degree Fahrenheit	94	U/10*10	enzyme unit per 10 billion
69	K	degree Kelvin	95	U/10*10{cells}	enzyme unit per 10 billion cells
70	K/W	degree Kelvin per Watt	96	U/(10.g){feces}	enzyme unit per 10 gram of feces
71	deg/s	degree per second	97	U/(12.h)	enzyme unit per 12 hour
72	daL/min	dekaliter per minute	98	U/(2.h)	enzyme unit per 2 hour
73	daL/min/m2	dekaliter per minute per square meter	99	U/(24.h)	enzyme unit per 24 hour
74	{dilution}	dilution	100	U/10*9	enzyme unit per billion
◊75	[diop]	diopter			

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
101	U/d	enzyme unit per day	◊127	[ft_us]/[ft_us]	feet (US) per feet (US)
102	U/dL	enzyme unit per deciliter	128	fg	femtogram
103	U/g	enzyme unit per gram	129	fL	femtoliter
104	U/g{creat}	enzyme unit per gram of creatinine	130	fm	femtometer
105	U/g{Hb}	enzyme unit per gram of hemoglobin	131	fmol	femtomole
106	U/g{protein}	enzyme unit per gram of protein	132	fmol/g	femtomole per gram
107	U/h	enzyme unit per hour	133	fmol/L	femtomole per liter
108	U/kg{Hb}	enzyme unit per kilogram of hemoglobin	134	fmol/mg	femtomole per milligram
109	U/L	enzyme unit per liter	135	fmol/mg{cyt_prot}	femtomole per milligram of cytosol protein
110	U{25Cel}/L	enzyme unit per liter at 25 deg Celsius	136	fmol/mg{prot}	femtomole per milligram of protein
111	U{37Cel}/L	enzyme unit per liter at 37 deg Celsius	137	fmol/mL	femtomole per milliliter
112	U/mL	enzyme unit per milliliter	138	[foz_us]	fluid ounce (US)
113	U/mL{RBCs}	enzyme unit per milliliter of red blood cells	139	{FIU}	fluorescent intensity unit
114	U/mmol{creat}	enzyme unit per millimole of creatinine	140	[ft_i]	foot (international)
115	U/10*6	enzyme unit per million	141	{fraction}	fraction
116	U/min	enzyme unit per minute	142	[Ch]	French (catheter gauge)
117	U/s	enzyme unit per second	143	{GAA_repeats}	GAA trinucleotide repeats
118	U/10*12	enzyme unit per trillion	144	[gal_us]	gallon (US)
119	U/10*12{RBCs}	enzyme unit per trillion red blood cells	145	{genomes}/mL	genomes per milliliter
120	eq	equivalent	146	{Globules}/[HPF]	globules (drops) per high power field
121	eq/L	equivalent per liter	147	g	gram
122	eq/umol	equivalent per micromole	148	g.m	gram meter
123	eq/mL	equivalent per milliliter	149	g.m/{beat}	gram meter per heart beat
124	eq/mmol	equivalent per millimole	150	g{creat}	gram of creatinine
125	erg	erg	151	g{Hb}	gram of hemoglobin
126	F	Farad	152	g{total_nit}	gram of total nitrogen

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
153	g{total_prot}	gram of total protein	179	g/kg/min	gram per kilogram per minute
154	g{wet_tissue}	gram of wet tissue	180	g/L	gram per liter
155	g/kg/(8.h)	gram per kilogram per 8 hour	181	g/mg	gram per milligram
156	g/(100.g)	gram per 100 gram	182	g/mL	gram per milliliter
157	g/(12.h)	gram per 12 hour	183	g/mmol	gram per millimole
158	g/(24.h)	gram per 24 hour	184	g/min	gram per minute
159	g/(3.d)	gram per 3 days	185	g/mol{creat}	gram per mole of creatinine
160	g/(4.h)	gram per 4 hour	186	g/{specimen}	gram per specimen
161	g/(48.h)	gram per 48 hour	◊187	g/cm2	gram per square centimeter
162	g/(5.h)	gram per 5 hour	188	g/m2	gram per square meter
163	g/(6.h)	gram per 6 hour	189	g/{total_output}	gram per total output
164	g/(72.h)	gram per 72 hour	190	g/{total_weight}	gram per total weight
165	g/(8.h){shift}	gram per 8 hour shift	191	Gy	Gray
166	g/cm3	gram per cubic centimeter	192	{beats}/min	heart beats per minute
167	g/d	gram per day	193	H	Henry
168	g/dL	gram per deciliter	194	Hz	Hertz
169	g/g	gram per gram	195	[HPF]	high power field
170	g/g{creat}	gram per gram of creatinine	196	h	hour
171	g/g{globulin}	gram per gram of globulin	◊197	h/d	hour per day
172	g/g{tissue}	gram per gram of tissue	◊198	h/wk	hour per week
173	g/h	gram per hour	199	[APL'U]/mL	IgA anticardiolipin unit per milliliter**
174	g/h/m2	gram per hour per square meter	200	[APL'U]	IgA anticardiolipin unit**
175	g/kg	gram per kilogram	201	{APS'U}	IgA antiphosphatidylserine unit
176	g/kg/(8.h){shift}	gram per kilogram per 8 hour shift	202	[GPL'U]/mL	IgG anticardiolipin unit per milliliter**
177	g/kg/d	gram per kilogram per day	203	[GPL'U]	IgG anticardiolipin unit**
178	g/kg/h	gram per kilogram per hour			

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
204	{GPS'U}	IgG antiphosphatidylserine unit	229	[IU]/kg	international unit per kilogram
205	[MPL'U]/mL	IgM anticardiolipin unit per milliliter**	230	[IU]/kg/d	international unit per kilogram per day
206	[MPL'U]	IgM anticardiolipin unit**	231	[IU]/L	international unit per liter
207	{MPS'U}	IgM antiphosphatidylserine unit	232	[IU]/L{37Cel}	international unit per liter at 37 degrees Celsius
208	{MPS'U}/mL	IgM antiphosphatidylserine unit per milliliter	233	[IU]/mg{creat}	international unit per milligram of creatinine
209	{ImmuneComplex'U}	immune complex unit	234	[IU]/mL	international unit per milliliter
210	{ISR}	immune status ratio	235	[IU]/min	international unit per minute
211	{IFA_index}	immunofluorescence assay index	236	J	joule
212	{IFA_titer}	Immunofluorescence assay titer	237	J/L	joule per liter
213	[in_i]	inch (international)	238	{JDF'U}	Juvenile Diabetes Foundation unit
214	[in_i'H2O]	inch (international) of water	239	{JDF'U}/L	Juvenile Diabetes Foundation unit per liter
◊215	[in_us]	inches (US)	240	{KCT'U}	kaolin clotting time
216	{index_val}	index value	241	kat	katal
◊217	{index}	index value	242	kat/kg	katal per kilogram
218	{HA_titer}	influenza hemagglutination titer	243	kat/L	katal per liter
219	{INR}	international normalized ratio	244	kU	kilo enzyme unit
220	[IU]	international unit	245	kU/g	kilo enzyme unit per gram
221	[IU]/(2.h)	international unit per 2 hour	246	kU/L	kilo enzyme unit per liter
222	[IU]/(24.h)	international unit per 24 hour	247	kU/L{class}	kilo enzyme unit per liter class
223	[IU]/10*9{RBCs}	international unit per billion red blood cells	248	kU/mL	kilo enzyme unit per milliliter
224	[IU]/d	international unit per day	249	k[IU]/L	kilo international unit per liter
225	[IU]/dL	international unit per deciliter	250	k[IU]/mL	kilo international unit per milliliter
226	[IU]/g	international unit per gram	251	kcal	kilocalorie
227	[IU]/g{Hb}	international unit per gram of hemoglobin	◊252	kcal/(24.h)	kilocalorie per 24 hour
228	[IU]/h	international unit per hour	253	kcal/d	kilocalorie per day
			254	kcal/h	kilocalorie per hour

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255	kcal/kg/(24.h)	kilocalorie per kilogram per 24 hour	281	L/min	liter per minute
256	kcal/[oz_av]	kilocalorie per ounce (US & British)	282	L/min/m2	liter per minute per sqaure meter
257	kg	kilogram	◊283	L/(min.m2)	liter per minute per square meter
258	kg.m/s	kilogram meter per second	284	L/s	liter per second
259	kg/m3	kilogram per cubic meter	285	L/s/s2	liter per second per square second
260	kg/h	kilogram per hour	286	{Log_copies}/mL	log (base 10) copies per milliliter
261	kg/L	kilogram per liter	287	{Log_IU}	log (base 10) international unit
262	kg/min	kilogram per minute	288	{Log_IU}/mL	log (base 10) international unit per milliliter
263	kg/mol	kilogram per mole	289	{Log}	log base 10
264	kg/s	kilogram per second	290	[LPF]	low power field
265	kg/(s.m2)	kilogram per second per square meter	291	lm	lumen
266	kg/m2	kilogram per square meter	292	lm.m2	lumen square meter
267	kL	kiloliter	293	{Lyme_index_value}	Lyme index value
268	km	kilometer	294	[mclg'U]	Maclagan unit
269	kPa	kilopascal	295	Ms	megasecond
270	ks	kilosecond	◊296	[MET].min/wk	metabolic equivalent minute per week
271	[ka'U]	King Armstrong unit	297	m	meter
272	{KRONU'U}/mL	Kronus unit per milliliter	298	m/s	meter per second
273	[knk'U]	Kunkel unit	299	m/s2	meter per square second
274	L	liter	300	t	metric ton
275	L/(24.h)	liter per 24 hour	301	uU/g	micro enzyme unit per gram
276	L/(8.h)	liter per 8 hour	302	uU/L	micro enzyme unit per liter
277	L/d	liter per day	303	uU/mL	micro enzyme unit per milliliter
278	L/h	liter per hour	304	u[IU]	micro international unit
279	L/kg	liter per kilogram	305	u[IU]/mL	micro international unit per milliliter
280	L/L	liter per liter	306	ueq	microequivalent

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
307	ueq/L	microequivalent per liter	332	ug/L	microgram per liter
308	ueq/mL	microequivalent per milliliter	333	ug/L{RBCs}	microgram per liter of red blood cells
309	ug	microgram	334	ug/L/(24.h)	microgram per liter per 24 hour
310	ug/g{feces}	microgram per gram of feces	335	ug/mg	microgram per milligram
311	ug{FEU}/mL	microgram fibrinogen equivalent unit per milliliter	336	ug/mg{creat}	microgram per milligram of creatinine
312	ug/(100.g)	microgram per 100 gram	337	ug/mL	microgram per milliliter
313	ug/(24.h)	microgram per 24 hour	338	ug/mL{class}	microgram per milliliter class
314	ug/(8.h)	microgram per 8 hour	339	ug/mL{eqv}	microgram per milliliter equivalent
315	ug/m3	microgram per cubic meter	340	ug/mmol	microgram per millimole
316	ug/d	microgram per day	341	ug/mmol{creat}	microgram per millimole of creatinine
317	ug/dL	microgram per deciliter	342	ug/min	microgram per minute
318	ug/dL{RBCs}	microgram per deciliter of red blood cells	343	ug/ng	microgram per nanogram
319	ug/g	microgram per gram	344	ug/{specimen}	microgram per specimen
320	ug/g{creat}	microgram per gram of creatinine	345	ug/[sft_i]	microgram per square foot (international)
321	ug/g{dry_tissue}	microgram per gram of dry tissue	346	ug/m2	microgram per square meter
322	ug/g{dry_wt}	microgram per gram of dry weight	347	u[IU]/L	microinternational unit per liter
323	ug/g{hair}	microgram per gram of hair	348	ukat	microkatal
324	ug/g{Hb}	microgram per gram of hemoglobin	349	uL	microliter
325	ug/g{tissue}	microgram per gram of tissue	350	uL/(2.h)	microliter per 2 hour
326	ug/h	microgram per hour	351	uL/h	microliter per hour
327	ug/kg	microgram per kilogram	352	um	micrometer
328	ug/kg/(8.h)	microgram per kilogram per 8 hour	353	umol	micromole
329	ug/kg/d	microgram per kilogram per day	354	umol{BCE}/mol	micromole bone collagen equivalent per mole
330	ug/kg/h	microgram per kilogram per hour	355	umol/(2.h)	micromole per 2 hour
331	ug/kg/min	microgram per kilogram per minute	356	umol/(24.h)	micromole per 24 hour
			357	umol/(8.h)	micromole per 8 hour

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
358	umol/d	micromole per day	384	umol/mol	micromole per mole
359	umol/dL	micromole per deciliter	385	umol/mol{creat}	micromole per mole of creatinine
360	umol/dL{GF}	micromole per deciliter of glomerular filtrate	386	umol/mol{Hb}	micromole per mole of hemoglobin
361	umol/g	micromole per gram	387	um/s	microns per second
362	umol/g{creat}	micromole per gram of creatinine	388	uOhm	microOhm
363	umol/g{Hb}	micromole per gram of hemoglobin	389	us	microsecond
364	umol/h	micromole per hour	390	uV	microvolt
365	umol/kg	micromole per kilogram	391	[mi_i]	mile (international)
366	umol/kg{feces}	micromole per kilogram of feces	392	mU/g	milli enzyme unit per gram
367	umol/L	micromole per liter	393	mU/mL	milli enzyme unit per milliliter
368	umol/L{RBCs}	micromole per liter of red blood cells	394	mU/mL/min	milli enzyme unit per milliliter per minute
369	umol/L/h	micromole per liter per hour	395	mU/mmol{creat}	milli enzyme unit per millimole of creatinine
370	umol/umol	micromole per micromole	396	mU/mmol{RBCs}	milli enzyme unit per millimole of red blood cells
371	umol/umol{creat}	micromole per micromole of creatinine	397	m[IU]/mL	milli international unit per milliliter
372	umol/mg	micromole per milligram	398	mU/g{Hb}	milli enzyme unit per gram of hemoglobin
373	umol/mg{creat}	micromole per milligram of creatinine	399	mU/g{prot}	milli enzyme unit per gram of protein
374	umol/mL	micromole per milliliter	400	mU/L	milli enzyme unit per liter
375	umol/mL/min	micromole per milliliter per minute	401	mU/mg	milli enzyme unit per milligram
376	umol/mmol	micromole per millimole	402	mU/mg{creat}	milli enzyme unit per milligram of creatinine
377	umol/mmol{creat}	micromole per millimole of creatinine	403	m[IU]/L	milli international unit per liter
◊378	umol/10*6{RBC}	micromole per million red blood cell	404	mA	milliampere
379	umol/min	micromole per minute	405	mbar	millibar
380	umol/min/g	micromole per minute per gram	406	mbar/L/s	millibar per liter per second
381	umol/min/g{mucosa}	micromole per minute per gram of mucosa	407	mbar.s/L	millibar second per liter
382	umol/min/g{prot}	micromole per minute per gram of protein	408	meq	milliequivalent
383	umol/min/L	micromole per minute per liter			

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409	meq/(2.h)	milliequivalent per 2 hour	435	mg/m3	milligram per cubic meter
410	meq/(24.h)	milliequivalent per 24 hour	436	mg/d	milligram per day
411	meq/(8.h)	milliequivalent per 8 hour	437	mg/d/{1.73_m2}	milligram per day per 1.73 square meter
412	meq/d	milliequivalent per day	438	mg/dL	milligram per deciliter
413	meq/dL	milliequivalent per deciliter	439	mg/dL{RBCs}	milligram per deciliter of red blood cells
414	meq/g	milliequivalent per gram	440	mg/g	milligram per gram
415	meq/g{creat}	milliequivalent per gram of creatinine	441	mg/g{creat}	milligram per gram of creatinine
416	meq/h	milliequivalent per hour	442	mg/g{dry_tissue}	milligram per gram of dry tissue
417	meq/kg	milliequivalent per kilogram	443	mg/g{feces}	milligram per gram of feces
418	meq/kg/h	milliequivalent per kilogram per hour	444	mg/g{tissue}	milligram per gram of tissue
419	meq/L	milliequivalent per liter	445	mg/g{wet_tissue}	milligram per gram of wet tissue
420	meq/mL	milliequivalent per milliliter	446	mg/h	milligram per hour
421	meq/min	milliequivalent per minute	447	mg/kg	milligram per kilogram
422	meq/{specimen}	milliequivalent per specimen	448	mg/kg/(8.h)	milligram per kilogram per 8 hour
423	meq/m2	milliequivalent per square meter	449	mg/kg/d	milligram per kilogram per day
424	meq/{total_volume}	milliequivalent per total volume	450	mg/kg/h	milligram per kilogram per hour
425	mg	milligram	451	mg/kg/min	milligram per kilogram per minute
426	mg{FEU}/L	milligram fibrinogen equivalent unit per liter	452	mg/L	milligram per liter
427	mg/(10.h)	milligram per 10 hour	453	mg/L{RBCs}	milligram per liter of red blood cells
428	mg/(12.h)	milligram per 12 hour	454	mg/mg	milligram per milligram
429	mg/(2.h)	milligram per 2 hour	455	mg/mg{creat}	milligram per milligram of creatinine
430	mg/(24.h)	milligram per 24 hour	456	mg/mL	milligram per milliliter
431	mg/(6.h)	milligram per 6 hour	457	mg/mmol	milligram per millimole
432	mg/(72.h)	milligram per 72 hour	458	mg/mmol{creat}	milligram per millimole of creatinine
433	mg/(8.h)	milligram per 8 hour	459	mg/min	milligram per minute
434	mg/{collection}	milligram per collection	460	mg/{specimen}	milligram per specimen

Table of Example* UCUM codes for Electronic Messaging - version 1.5
6/2020

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
461	mg/m2	milligram per square meter	487	mL/kg/min	milliliter per kilogram per minute
462	mg/{total_output}	milligram per total output	488	mL/mbar	milliliter per millibar
463	mg/{total_volume}	milligram per total volume	489	mL/mm	milliliter per millimeter
464	mg/wk	milligram per week	490	mL/min	milliliter per minute
465	mL	milliliter	491	mL/min/{1.73_m2}	milliliter per minute per 1.73 square meter
466	mL{fetal_RBCs}	milliliter of fetal red blood cells	492	mL/min/m2	milliliter per minute per square meter
467	mL/(10.h)	milliliter per 10 hour	493	mL/s	milliliter per second
468	mL/(12.h)	milliliter per 12 hour	494	mL/[sin_i]	milliliter per square inch (international)
469	mL/(2.h)	milliliter per 2 hour	495	mL/m2	milliliter per square meter
470	mL/(24.h)	milliliter per 24 hour	496	mm	millimeter
471	mL/(4.h)	milliliter per 4 hour	497	mm[Hg]	millimeter of mercury
472	mL/(5.h)	milliliter per 5 hour	498	mm[H2O]	millimeter of water
473	mL/(6.h)	milliliter per 6 hour	499	mm/h	millimeter per hour
474	mL/(72.h)	milliliter per 72 hour	500	mm/min	millimeter per minute
475	mL/(8.h)	milliliter per 8 hour	501	mmol	millimole
476	mL/(8.h)/kg	milliliter per 8 hour per kilogram	502	mmol/(12.h)	millimole per 12 hour
477	mL/cm[H2O]	milliliter per centimeter of water	503	mmol/(2.h)	millimole per 2 hour
478	mL/d	milliliter per day	504	mmol/(24.h)	millimole per 24 hour
479	mL/dL	milliliter per deciliter	505	mmol/(5.h)	millimole per 5 hour
480	mL/{beat}	milliliter per heart beat	506	mmol/(6.h)	millimole per 6 hour
481	mL/{beat}/m2	milliliter per heart beat per square meter	507	mmol/(8.h)	millimole per 8 hour
482			508	mmol/d	millimole per day
483	mL/kg	milliliter per kilogram	509	mmol/dL	millimole per deciliter
484	mL/kg/(8.h)	milliliter per kilogram per 8 hour	510	mmol/{ejaculate}	millimole per ejaculate
485	mL/kg/d	milliliter per kilogram per day	511	mmol/g	millimole per gram
486	mL/kg/h	milliliter per kilogram per hour	512	mmol/g{creat}	millimole per gram of creatinine

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
513	mmol/h	millimole per hour	539	10*6/uL	million per microliter
514	mmol/h/mg{Hb}	millimole per hour per milligram of hemoglobin	540	10*6/mL	million per milliliter
515	mmol/h/mg{prot}	millimole per hour per milligram of protein	541	mosm	milliosmole
516	mmol/kg	millimole per kilogram	542	mosm/kg	milliosmole per kilogram
517	mmol/kg/(8.h)	millimole per kilogram per 8 hour	543	mosm/L	milliosmole per liter
518	mmol/kg/d	millimole per kilogram per day	544	mPa	millipascal
519	mmol/kg/h	millimole per kilogram per hour	545	mPa.s	millipascal second
520	mmol/kg/min	millimole per kilogram per minute	546	ms	millisecond
521	mmol/L	millimole per liter	547	mV	millivolt
522	mmol/L{RBCs}	millimole per liter of red blood cells	◊548	mV/s	millivolt per second
523	mmol/mmol	millimole per millimole	549	{minidrop}/min	minidrop per minute
524	mmol/mmol{urea}	millimole per millimole of urea	550	{minidrop}/s	minidrop per second
525	mmol/mmol{creat}	millimole per millmole of creatinine	551	min	minute
526	mmol/min	millimole per minute	◊552	min/d	minute per day
527	mmol/mol	millimole per mole	◊553	min/wk	minute per week
528	mmol/mol{creat}	millimole per mole of creatinine	554	mol	mole
529	mmol/s/L	millimole per second per liter	555	mol/m3	mole per cubic meter
530	mmol/{specimen}	millimole per specimen	556	mol/kg	mole per kilogram
531	mmol/m2	millimole per square meter	557	mol/kg/s	mole per kilogram per second
532	mmol/{total_vol}	millimole per total volume	558	mol/L	mole per liter
533	10*6	million	559	mol/mL	mole per milliliter
534	10*6.[CFU]/L	million colony forming unit per liter	560	mol/mol	mole per mole
535	10*6.[IU]	million international unit	561	mol/s	mole per second
536	10*6/(24.h)	million per 24 hour	562	{#}/{platelet}	molecule per platelet
537	10*6/kg	million per kilogram	563	mo	month
538	10*6/L	million per liter	564	{mm/dd/yyyy}	month-day-year

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
565	{M.o.M}	multiple of the median	590	ng/10*6	nanogram per million
566	{mutation}	mutation	591	ng/10*6{RBCs}	nanogram per million red blood cells
567	nU/mL	nanoenzyme unit per milliliter	592	ng/mL	nanogram per millliliter
568	nU/{RBC}	nanoenzyme unit per red blood cell	593	ng/min	nanogram per minute
569	ng	nanogram	594	ng/s	nanogram per second
570	ng{FEU}/mL	nanogram fibrinogen equivalent unit per milliliter	595	ng/m2	nanogram per square meter
571	ng/(24.h)	nanogram per 24 hour	596	nkat	nanokatal
572	ng/(8.h)	nanogram per 8 hour	597	nL	nanoliter
573	ng/d	nanogram per day	598	nm	nanometer
574	ng/dL	nanogram per deciliter	599	nm/s/L	nanometer per second per liter
575	ng/U	nanogram per enzyme unit	600	nmol	nanomole
576	ng/g	nanogram per gram	601	nmol{BCE}	nanomole bone collagen equivalent
577	ng/g{creat}	nanogram per gram of creatinine	602	nmol{BCE}/L	nanomole bone collagen equivalent per liter
578	ng/h	nanogram per hour	603	nmol/mmol{creat}	nanomole bone collagen equivalent per millimole of creatinine
579	ng/kg	nanogram per kilogram	604	nmol/mg{prot}	nanomole of 1/2 cystine per milligram of protein
580	ng/kg/(8.h)	nanogram per kilogram per 8 hour	605	nmol{ATP}	nanomole of ATP
581	ng/kg/h	nanogram per kilogram per hour	606	nmol/(24.h)	nanomole per 24 hour
582	ng/kg/min	nanogram per kilogram per minute	607	nmol/d	nanomole per day
583	ng/L	nanogram per liter	608	nmol/dL	nanomole per deciliter
584	ng/mg	nanogram per milligram	609	nmol/dL{GF}	nanomole per deciliter of glomerular filtrate
585	ng/mg{creat}	nanogram per milligram of creatinine	610	nmol/g	nanomole per gram
586	ng/mg{prot}	nanogram per milligram of protein	611	nmol/g{creat}	nanomole per gram of creatinine
587	ng/mg/h	nanogram per milligram per hour	612	nmol/g{dry_wt}	nanomole per gram of dry weight
588	ng/mL{RBCs}	nanogram per milliliter of red blood cells	613	nmol/h/L	nanomole per hour per liter
589	ng/mL/h	nanogram per milliliter per hour	614	nmol/h/mg{prot}	nanomole per hour per milligram of protein

◊ The diamond symbol next to row number indicates addition since previous release version.

Table of Example* UCUM codes for Electronic Messaging - version 1.5
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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
615	nmol/h/mg{protein}	nanomole per hour per milligram protein	641	nmol/s	nanomole per second
◊616	nmol/h/mL	nanomole per hour per milliliter	642	nmol/s/L	nanomole per second per liter
617	nmol/L	nanomole per liter	643	ns	nanosecond
618	nmol/L{RBCs}	nanomole per liter of red blood cells	644	N	Newton
619	nmol/L/mmol{creat}	nanomole per liter per millimole of creatinine	645	N.cm	Newton centimeter
620	nmol/m/mg{prot}	nanomole per meter per milligram of protein	646	N.s	Newton second
621	nmol/umol{creat}	nanomole per micromole of creatinine	647	{#}	number
622	nmol/mg	nanomole per milligram	◊648	{#}/a	number per annum (year)
623	nmol/mg{creat}	nanomole per milligram of creatinine	◊649	{#}/d	number per day
624	nmol/mg{prot}	nanomole per milligram of protein	◊650	{#}/g	number per gram
625	nmol/mg{prot}/h	nanomole per milligram of protein per hour	651	{#}/[HPF]	number per high power field
626	nmol/mg/h	nanomole per milligram per hour	652	{#}/L	number per liter
627	nmol/mL	nanomole per milliliter	653	{#}/[LPF]	number per low power field
628	nmol/mL/h	nanomole per milliliter per hour	654	{#}/uL	number per microliter
629	nmol/mL/min	nanomole per milliliter per minute	655	{#}/mL	number per milliliter
630	nmol/mmol	nanomole per millimole	656	{#}/min	number per minute
631	nmol/mmol{creat}	nanomole per millimole of creatinine	◊657	{#}/wk	number per week
632	nmol/min	nanomole per minute	658	Ohm	Ohm
633	nmol/min/mg{Hb}	nanomole per minute per milligram of hemoglobin	659	Ohm.m	Ohm meter
◊634	nmol/min/mg{prot}	nanomole per minute per milligram of protein	660	10*5	one hundred thousand
635	nmol/min/mg{protein}	nanomole per minute per milligram protein	661	{OD_unit}	optical density unit
636	nmol/min/mL	nanomole per minute per milliliter	662	osm	osmole
637	nmol/min/10*6{cells}	nanomole per minute per million cells	663	osm/kg	osmole per kilogram
638	nmol/mol	nanomole per mole	664	osm/L	osmole per liter
◊639	nmol/mol{creat}	nanomole per mole creatinine	665	[oz_av]	ounce (US and British)
640	nmol/nmol	nanomole per nanomole	666	{Pan_Bio'U}	panbio unit

Table of Example* UCUM codes for Electronic Messaging - version 1.5
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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
667	[ppb]	part per billion	693	/g{wet_tis}	per gram of wet tissue
668	[ppm]	part per million	694	/[HPF]	per high power field
669	[ppm]{v/v}	part per million in volume per volume	695	/h	per hour
670	[ppth]	part per thousand	696	/[IU]	per international unit
671	[pptr]	part per trillion	697	/kg	per kilogram
672	Pa	Pascal	698	/kg{body_wt}	per kilogram of body weight
673	/10*10	per 10 billion	699	/L	per liter
674	/10*4{RBCs}	per 10 thousand red blood cells	700	/[LPF]	per low power field
675	/100	per 100	701	/uL	per microliter
676	/100{cells}	per 100 cells	702	/mg	per milligram
677	/100{neutrophils}	per 100 neutrophils	703	/mL	per milliliter
678	/100{spermatozoa}	per 100 spermatozoa	704	/mm	per millimeter
679	/100{WBCs}	per 100 white blood cells	705	/mmol{creat}	per millimole of creatinine
680	/[arb'U]	per arbitrary unit	706	/10*6	per million
681	/10*9	per billion	707	/min	per minute
682	/cm[H2O]	per centimeter of water	708	/mo	per month
683	/m3	per cubic meter	709	/{OIF}	per oil immersion field
684	/d	per day	710	/s	per second
685	/dL	per deciliter	711	/m2	per square meter
686	/{entity}	per entity	712	/10*3	per thousand
687	/U	per enzyme unit	713	/10*3{RBCs}	per thousand red blood cells
688	/g	per gram	714	/10*12	per trillion
689	/g{creat}	per gram of creatinine	715	/10*12{RBCs}	per trillion red blood cells
690	/g{Hb}	per gram of hemoglobin	716	/(12.h)	per twelve hour
691	/g{tot_nit}	per gram of total nitrogen	717	/wk	per week
692	/g{tot_prot}	per gram of total protein	718	/a	per year

◊ The diamond symbol next to row number indicates addition since previous release version.

Table of Example* UCUM codes for Electronic Messaging - version 1.5
6/2020

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
719	%	percent	745	%{baseline}	percent of baseline
720	%{loss_AChR}	percent loss of acetylcholine receptor	746	%{cells}	percent of cells
721	%{penetration}	percent penetration	747	%{RBCs}	percent of red blood cells
722	%{abnormal}	percent abnormal	748	%{WBCs}	percent of white blood cells
723	%{activity}	percent activity	749	%{positive}	percent positive
724	%{aggregation}	percent aggregation	750	%{reactive}	percent reactive
725	%{at_60_min}	percent at 60 minute	751	%{recovery}	percent recovery
726	%{basal_activity}	percent basal activity	752	%{reference}	percent reference
727	%{binding}	percent binding	753	%{residual}	percent residual
728	%{blockade}	percent blockade	◊754	%{response}	percent response
729	%{blocked}	percent blocked	755	%{saturation}	percent saturation
730	%{bound}	percent bound	756	%{total}	percent total
731	%{breakdown}	percent breakdown	757	%{uptake}	percent uptake
732	%{vol}	percent by volume	758	%{viable}	percent viable
733	%{deficient}	percent deficient	759	{percentile}	percentile
734	%{dose}	percent dose	760	[pH]	pH
735	%{excretion}	percent excretion	761	{phenotype}	phenotype
736	%{Hb}	percent hemoglobin	762	pA	picoampere
737	%{hemolysis}	percent hemolysis	763	pg	picogram
738	%{index}	percent index	764	pg/{cell}	picogram per cell
739	%{inhibition}	percent inhibition	765	pg/dL	picogram per deciliter
740	%{loss}	percent loss	766	pg/L	picogram per liter
741	%{lysis}	percent lysis	767	pg/mg	picogram per milligram
742	%{normal}	percent normal	768	pg/mg{creat}	picogram per milligram of creatinine
743	%{pooled_plasma}	percent normal pooled plasma	769	pg/mL	picogram per milliliter
744	%{bacteria}	percent of bacteria	◊770	pg/mL{sLT}	picogram per milliliter sulfidoleukotrienes

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
771	pg/mm	picogram per millimeter	797	[qt_us]	quart (US)
772	pg/{RBC}	picogram per red blood cell	798	{ratio}	Ratio
773	pkat	picokatal	799	{RBC}/uL	red blood cell per microliter
774	pL	picoliter	800	%{relative}	relative percent
775	pm	picometer	801	{rel_saturation}	relative saturation
776	pmol	picomole	◊802	{risk}	Risk
777	pmol/(24.h)	picomole per 24 hour	803	{Rubella_virus}	rubella virus
778	pmol/d	picomole per day	804	{saturation}	Saturation
779	pmol/dL	picomole per deciliter	◊805	{score}	Score
780	pmol/g	picomole per gram	806	s	second
◊781	pmol/h/mg{prot}	picomole per hour per milligram of protein	807	s/{control}	second per control
782	pmol/h/mL	picomole per hour per milliliter	808	{shift}	Shift
783	pmol/L	picomole per liter	809	S	Siemens
784	pmol/umol	picomole per micromole	810	Sv	Sievert
785	pmol/umol{creat}	picomole per micromole of creatinine	811	{s_co_ratio}	signal to cutoff ratio
786	pmol/mg{prot}	picomole per milligram of protein	812	{spermatozoa}/mL	spermatozoa per milliliter
787	pmol/mL	picomole per milliliter	813	cm2	square centimeter
788	pmol/mmol{creat}	picomole per millimole of creatinine	814	cm2/s	square centimeter per second
789	pmol/min	picomole per minute	815	dm2/s2	square decimeter per square second
790	pmol/min/mg{prot}	picomole per minute per milligram of protein	816	[sft_i]	square foot (international)
791	pmol/{RBC}	picomole per red blood cell	817	[sin_i]	square inch (international)
792	ps	picosecond	818	m2	square meter
793	pT	picotesla	819	m2/s	square meter per second
794	[pt_us]	pint (US)	829	mm2	square millimeter
795	[lb_av]	pound (US and British)	821	[syd_i]	square yard (international)
796	[psi]	pound per square inch	822	{STDV}	standard deviation

Table of Example* UCUM codes for Electronic Messaging - version 1.5
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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
◊823	{Tscore}	t score	836	[todd'U]	Todd unit
824	[tbs_us]	tablespoon (US)	837	Torr	Torr
825	[tsp_us]	teaspoon (US)	838	10*12/L	trillion per liter
826	T	Tesla	839	[oz_tr]	Troy ounce
827	10*3	thousand	840	[tb'U]	tuberculin unit
828	10*3{copies}/mL	thousand copies per milliliter	841	V	volt
829	10*3/L	thousand per liter	842	Wb	Weber
830	10*3/uL	thousand per microliter	843	wk	week
831	10*3/mL	thousand per milliliter	844	{WBCs}	white blood cells
832	10*3{RBCs}	thousand red blood cells	845	[yd_i]	yard (international)
833	{TSI_index}	thyroid-stimulating immunoglobulin index	846	a	year
◊834	{TmStp}	time stamp	◊847	{yyyy}	year
835	{titer}	titer	◊848	{Zscore}	z score

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Appendix Revisions Log

Version 1.5, Released June, 2020

Row # Current Version (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Last Updated	Corrected by (initials BEM = Brenee Mitchell)	Row # at time of correction (not a code)	Previous UCUM version (with Errors or Omissions)	Description of Change Made
26	{breaths}/min	breaths per minute	6/2020	BEM	26	N/A	*Addition*
39	cm/s	centimeter per second	6/2020	BEM	39	N/A	*Addition*
55	cm3	cubic centimeter	6/2020	BEM	55	N/A	*Addition*
58	{Ct_value}	Cycle threshold value	6/2020	BEM	58	N/A	*Addition*
60	d/(7.d)	day per 7 day	6/2020	BEM	60	N/A	*Addition*
61	d/wk	days per week	6/2020	BEM	61	N/A	*Addition*
75	[diop]	Diopter	6/2020	BEM	75	N/A	*Addition*
127	[ft_us]/[ft_us]	feet (US) per feet (US)	6/2020	BEM	127	N/A	*Addition*
187	g/cm2	gram per square centimeter	6/2020	BEM	187	N/A	*Addition*
197	h/d	hour per day	6/2020	BEM	197	N/A	*Addition*
198	h/wk	hour per week	6/2020	BEM	198	N/A	*Addition*
215	[in_us]	inches (US)	6/2020	BEM	215	N/A	*Addition*
217	{index}	index value	6/2020	BEM	217	N/A	*Addition*
252	kcal/(24.h)	kilocalorie per 24 hour	6/2020	BEM	252	N/A	*Addition*
283	L/min/m2	liter per minute per sqaure meter	6/2020	BEM	283	N/A	*Addition*
296	[MET].min/wk	metabolic equivalent minute per week	6/2020	BEM	296	N/A	*Addition*
378	umol/10*6{RBC}	micromole per million red blood cell	6/2020	BEM	378	N/A	*Addition*
548	mV/s	millivolt per second	6/2020	BEM	548	N/A	*Addition*
552	min/d	minute per day	6/2020	BEM	552	N/A	*Addition*
553	min/wk	minute per week	6/2020	BEM	553	N/A	*Addition*
616	nmol/h/mL	nanomole per hour per milliliter	6/2020	BEM	616	N/A	*Addition*
634	nmol/min/mg{protein}	nanomole per minute per milligram protein	6/2020	BEM	634	N/A	*Addition*
639	nmol/mol{creat}	nanomole per mole creatinine	6/2020	BEM	639	N/A	*Addition*

◊ The diamond symbol next to row number indicates addition since previous release version.

648	{#}/a	number per annum (year)	6/2020	BEM	648	N/A	*Addition*
649	{#}/d	number per day	6/2020	BEM	649	N/A	*Addition*
650	{#}/g	number per gram	6/2020	BEM	650	N/A	*Addition*
657	{#}/wk	number per week	6/2020	BEM	657	N/A	*Addition*
754	%{response}	percent response	6/2020	BEM	754	N/A	*Addition*
770	pg/mL{sLT}	picogram per milliliter sulfidoleukotrienes	6/2020	BEM	770	N/A	*Addition*
781	pmol/H/mg{protein}	picomole per hour per milligram protein	6/2020	BEM	781	N/A	*Addition*
802	{risk}	risk	6/2020	BEM	802	N/A	*Addition*
805	{score}	score	6/2020	BEM	805	N/A	*Addition*
823	{Tscore}	t score	6/2020	BEM	823	N/A	*Addition*
834	{TmStp}	time stamp	6/2020	BEM	834	N/A	*Addition*
847	{yyyy}	year	6/2020	BEM	847	N/A	*Addition*
848	{Zscore}	z score	6/2020	BEM	848	N/A	*Addition*

Version 1.4, Released July 18, 2016

Row # Current Version (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Last Updated	Corrected by (initials RG = Rebecca Goodwin)	Row # at time of correction (not a code)	Previous UCUM version (with Errors or Omissions)	Description of Change Made
259	[knk'U]	Kunkel unit	7/18/2016	RG	259	[knk'U]	*deleted trailing spaces*
685	/10*3{RBCs}	per thousand red blood cells	7/18/2016	RG	685	/10*3.{RBCs}	*deleted dot notation*

Version 1.3, Released September 26, 2014

Row # Current Version (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Last Updated	Corrected by (initials RG = Rebecca Goodwin)	Row # at time of correction (not a code)	Previous UCUM version (with Errors or Omissions)	Description of Change Made
[removed]	mol/	mole per	9/24/2014	RG	535	mol/	*Removed because redundant with mol (row 534).*
127	fmol/mg{cyt_prot}	femtomole per milligram of cytosol protein	7/30/2014	RG	127	fmol/mg{cytosol_protein}	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*

◊ The diamond symbol next to row number indicates addition since previous release version.

128	fmol/mg{prot}	**femtomole per milligram of protein**	7/30/2014	RG	128	fmol/mg{protein}	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*
365	umol/min/g{prot}	**micromole per minute per gram of protein**	7/30/2014	RG	365	umol/min/g{protein}	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*
382	mU/g{prot}	**milli enzyme unit per gram of protein**	7/30/2014	RG	382	mU/g{protein}	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*
459	mL/(8.h)/kg	**milliliter per 8 hour per kilogram**	9/23/2014	RG	459	mL(8.h)/kg	*Corrected syntax to match narrative definition.*
498	mmol/h/mg{prot}	**millimole per hour per milligram of protein**	7/30/2014	RG	498	mmol/h/mg{protein}	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*
542	{#}/{platelet}	**molecule per platelet**	7/30/2014	RG	543	{molecule}/{platelet}	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*
566	ng/mg{prot}	**nanogram per milligram of protein**	7/30/2014	RG	567	ng/mg{protein}	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*
583	nmol/mmol{creat}	**nanomole bone collagen equivalent per millimole of creatinine**	7/30/2014	RG	584	nmol{BCE}/mmol{creat}	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*
584	nmol/mg{prot}	**nanomole of 1/2 cystine per milligram of protein**	7/30/2014	RG	585	nmol{1/2cys}/mg{protein}	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*
594	nmol/h/mg{prot}	**nanomole per hour per milligram of protein**	7/30/2014	RG	595	nmol/h/mg{protein}	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*
598	nmol/m/mg{prot}	**nanomole per meter per milligram of protein**	7/30/2014	RG	599	nmol/m/mg{protein}	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*
602	nmol/mg{prot}	**nanomole per milligram of protein**	7/30/2014	RG	603	nmol/mg{protein}	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*
603	nmol/mg{prot}/h	**nanomole per milligram of protein per hour**	7/30/2014	RG	604	nmol/mg{protein}/h	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*
612	nmol/min/mg{prot}	**nanomole per minute per milligram of protein**	7/30/2014	RG	613	nmol/min/mg{protein}	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*
715	%{pooled_plasma}	**percent normal pooled plasma**	7/30/2014	RG	716	%{normal_pooled_plasma}	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*
751	pmol/h/mg{prot}	**picomole per hour per milligram of protein**	7/30/2014	RG	752	pmol/h/mg{protein}	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*
756	pmol/mg{prot}	**picomole per milligram of protein**	7/30/2014	RG	757	pmol/mg{protein}	*abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths*

◊ **The diamond symbol next to row number indicates addition since previous release version.**

| 760 | pmol/min/mg{p rot} | **picomole per minute per milligram of protein** | 7/30/2014 | RG | 761 | pmol/min/m g{protein} | *abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths* |
| 771 | {rel_saturation} | **relative saturation** | 7/30/2014 | RG | 772 | {relative_sat uration} | *abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths* |

Version 1.2, Released January 31, 2014

UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Last Updated	Corrected by (initials RG = Rebecca Goodwin)	Row # at time of correction (not a code)	Previous UCUM_CODE (with Errors or Omissions)	Description of Change Made
k[AU]	**kilo allergy unit**	2/6/2014	RG	231	*k[AU]*	*Removed because non-metric unit and discouraged for use because of ambiguous use in EIA testing*
k[AU]/L	**kilo allergy unit per liter**	2/6/2014	RG	232	*k[AU]/L*	*Removed because non-metric unit and discouraged for use because of ambiguous use in EIA testing*
{AHF'U}	**American Hospital Formulary unit**	1/31/2014	RG	10	*{AHF'U}*	*Changed apostrophe format from ' to '*
[beth'U]	**Bethesda unit**	1/31/2014	RG	20	*[beth'U]*	*Changed apostrophe format from ' to '*
{Ehrlich'U}	**Ehrlich unit**	1/31/2014	RG	73	*{Ehrlich'U}*	*Changed apostrophe format from ' to '*
{Ehrlich'U}/ 100.g	**Ehrlich unit per 100 gram**	1/31/2014	RG	74	*{Ehrlich'U}/100g*	*Changed apostrophe format from ' to ' and added period between 100 and g*
{Ehrlich'U}/ (2.h)	**Ehrlich unit per 2 hour**	1/31/2014	RG	75	*{Ehrlich'U}/(2.h)*	*Changed apostrophe format from ' to '*
{Ehrlich'U}/ d	**Ehrlich unit per day**	1/31/2014	RG	76	*{Ehrlich'U}/d*	*Changed apostrophe format from ' to '*
g/kg/(8.h)	**gram per kilogram per 8 hour**	1/31/2014	RG	147	*g/kg/8.h*	*Added parentheses around 8.h*
g/kg	**gram per kilogram**	1/31/2014	RG	167	*g/kg*	*deleted trailing space after closing bracket*
{ImmuneComplex'U}	**immune complex unit**	1/31/2014	RG	198	*{ImmuneComplex 'U}*	*Changed apostrophe format from ' to '*
[ka'U]	**King Armstrong unit**	1/31/2014	RG	259	*[ka'U]*	*Changed apostrophe format from ' to '*
[knk'U]	**Kunkel unit**	1/31/2014	RG	261	*[KNK'U]*	*Changed apostrophe format from ' to ' and deleted trailing space after closing bracket*
[mclg'U]	**Maclagan unit**	1/31/2014	RG	281	*[MCLG'U]*	*Changed apostrophe format from ' to '*
mg/d/{1.73 _m2}	**milligram per day per 1.73 square meter**	1/31/2014	RG	422	*mg/d/(1.73_m2)*	*Changed parentheses to curly brackets*
mL(8.h)/kg	**milliliter per 8 hour per kilogram**	1/31/2014	RG	461	*mL(8.h.kg)*	*Corrected syntax to match narrative definition.*
[pptr]	**part per trillion**	1/31/2014	RG	646	*[ppt]*	*Added missing r*
[todd'U]	**Todd unit**	1/31/2014	RG	805	*[Todd'U]*	*Changed apostrophe format from ' to '*

◊ **The diamond symbol next to row number indicates addition since previous release version.**

Table of Example* UCUM codes for Electronic Messaging - version 1.5
6/2020

Version 1.1, Released October 4, 2011

UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Last Updated	Corrected by (initials RG = Rebecca Goodwin)	Row # at time of correction (not a code)	Previous UCUM version (with Errors or Omissions)	Description of Change Made
[ka'U]	King Armstrong unit	10/4/2011	RG	259	[KA'U]	Changed to lowercase ka
[knk'U]	Kunkel unit	10/4/2011	RG	261	[KNK'U]	Changed to lowercase knk
[mclg'U]	Maclagan unit	10/4/2011	RG	281	[MCLG'U]	Changed to lowercase mclg
[todd'U]	Todd unit	10/4/2011	RG	805	[Todd'U]	Changed to lowercase t
g/(100.g)	gram per 100 gram	10/4/2011	RG	148	g/100g	Added period between 100 and g
g/(100.g)	gram per 100 gram	10/4/2011	RG	148	g/100g	Added period between 100 and g
ug/(100.g)	microgram per 100 gram	10/4/2011	RG	298	ug/100g	Added period between 100 and g
ug/(100.g)	microgram per 100 gram	10/4/2011	RG	298	ug/100g	Added period between 100 and g

◊ **The diamond symbol next to row number indicates addition since previous release version.**