

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

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

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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

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
50	{copies}/ug	copies per microgram
51	{copies}/mL	copies per milliliter
52	{count}	count
53	{CPM}	counts per minute
54	{CPM}/10*3{cell}	counts per minute per thousand cells
055	cm3	cubic centimeter
56	[cin_i]	cubic inch (international)
57	m3/s	cubic meter per second
058	{Ct_value}	Cycle threshold value
59	d	day
060	d/(7.d)	day per 7 day
061	d/wk	days per week
62	dB	decibel
63	dg	decigram
64	dL	deciliter
65	dm	decimeter
66	deg	degree (plane angle)
67	Cel	degree Celsius
68	[degF]	degree Fahrenheit
69	K	degree Kelvin
70	K/W	degree Kelvin per Watt
71	deg/s	degree per second
72	daL/min	dekaliter per minute
73	daL/min/m2	dekaliter per minute per square meter
74	{dilution}	dilution
075	[diop]	diopter

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
76	[dr_av]	dram (US and British)
77	[drp]	drop (1/12 milliliter)
78	dyn.s/cm	dyne second per centimeter
79	dyn.s/(cm.m2)	dyne second per centimeter per square meter
80	{Ehrlich'U}	Ehrlich unit
81	{Ehrlich'U}/100.g	Ehrlich unit per 100 gram
82	{Ehrlich'U}/(2.h)	Ehrlich unit per 2 hour
83	{Ehrlich'U}/d	Ehrlich unit per day
84	{Ehrlich'U}/dL	Ehrlich unit per deciliter
85	{EIA_index}	EIA index
86	{EIA_titer}	EIA titer
87	{EIA'U}	EIA unit
88	{EIA'U}/U	EIA unit per enzyme unit
89	{EV}	EIA value
90	eV	electron Volt
91	{ELISA'U}	ELISA unit
92	U	enzyme unit
93	U/10	enzyme unit per 10
94	U/10*10	enzyme unit per 10 billion
95	U/10*10{cells}	enzyme unit per 10 billion cells
96	U/(10.g){feces}	enzyme unit per 10 gram of feces
97	U/(12.h)	enzyme unit per 12 hour
98	U/(2.h)	enzyme unit per 2 hour
99	U/(24.h)	enzyme unit per 24 hour
100	U/10*9	enzyme unit per billion

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
101	U/d	enzyme unit per day
102	U/dL	enzyme unit per deciliter
103	U/g	enzyme unit per gram
104	U/g{creat}	enzyme unit per gram of creatinine
105	U/g{Hb}	enzyme unit per gram of hemoglobin
106	U/g{protein}	enzyme unit per gram of protein
107	U/h	enzyme unit per hour
108	U/kg{Hb}	enzyme unit per kilogram of hemoglobin
109	U/L	enzyme unit per liter
110	U{25Celsius}/L	enzyme unit per liter at 25 deg Celsius
111	U{37Celsius}/L	enzyme unit per liter at 37 deg Celsius
112	U/mL	enzyme unit per milliliter
113	U/mL{RBCs}	enzyme unit per milliliter of red blood cells
114	U/mmol{creat}	enzyme unit per millimole of creatinine
115	U/10*6	enzyme unit per million
116	U/min	enzyme unit per minute
117	U/s	enzyme unit per second
118	U/10*12	enzyme unit per trillion
119	U/10*12{RBCs}	enzyme unit per trillion red blood cells
120	eq	equivalent
121	eq/L	equivalent per liter
122	eq/umol	equivalent per micromole
123	eq/mL	equivalent per milliliter
124	eq/mmol	equivalent per millimole
125	erg	erg
126	F	Farad

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
127	[ft_us]/[ft_us]	feet (US) per feet (US)
128	fg	femtogram
129	fL	femtoliter
130	fm	femtometer
131	fmol	femtomole
132	fmol/g	femtomole per gram
133	fmol/L	femtomole per liter
134	fmol/mg	femtomole per milligram
135	fmol/mg{cyt_prot}	femtomole per milligram of cytosol protein
136	fmol/mg{prot}	femtomole per milligram of protein
137	fmol/mL	femtomole per milliliter
138	[foz_us]	fluid ounce (US)
139	{FIU}	fluorescent intensity unit
140	[ft_i]	foot (international)
141	{fraction}	fraction
142	[Ch]	French (catheter gauge)
143	{GAA_repeats}	GAA trinucleotide repeats
144	[gal_us]	gallon (US)
145	{genomes}/mL	genomes per milliliter
146	{Globules}/[HPF]	globules (drops) per high power field
147	g	gram
148	g.m	gram meter
149	g.m/{beat}	gram meter per heart beat
150	g{creat}	gram of creatinine
151	g{Hb}	gram of hemoglobin
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)
153	g{total_prot}	gram of total protein
154	g{wet_tissue}	gram of wet tissue
155	g/kg/{8.h}	gram per kilogram per 8 hour
156	g/{100.g}	gram per 100 gram
157	g/{12.h}	gram per 12 hour
158	g/{24.h}	gram per 24 hour
159	g/{3.d}	gram per 3 days
160	g/{4.h}	gram per 4 hour
161	g/{48.h}	gram per 48 hour
162	g/{5.h}	gram per 5 hour
163	g/{6.h}	gram per 6 hour
164	g/{72.h}	gram per 72 hour
165	g/{8.h}{shift}	gram per 8 hour shift
166	g/cm3	gram per cubic centimeter
167	g/d	gram per day
168	g/dL	gram per deciliter
169	g/g	gram per gram
170	g/g{creat}	gram per gram of creatinine
171	g/g{globulin}	gram per gram of globulin
172	g/g{tissue}	gram per gram of tissue
173	g/h	gram per hour
174	g/h/m2	gram per hour per square meter
175	g/kg	gram per kilogram
176	g/kg/{8.h}{shift}	gram per kilogram per 8 hour shift
177	g/kg/d	gram per kilogram per day
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)
179	g/kg/min	gram per kilogram per minute
180	g/L	gram per liter
181	g/mg	gram per milligram
182	g/mL	gram per milliliter
183	g/mmol	gram per millimole
184	g/min	gram per minute
185	g/mol{creat}	gram per mole of creatinine
186	g/{specimen}	gram per specimen
187	g/cm2	gram per square centimeter
188	g/m2	gram per square meter
189	g/{total_output}	gram per total output
190	g/{total_weight}	gram per total weight
191	Gy	Gray
192	{beats}/min	heart beats per minute
193	H	Henry
194	Hz	Hertz
195	[HPF]	high power field
196	h	hour
197	h/d	hour per day
198	h/wk	hour per week
199	[APL'U]/mL	IgA anticardiolipin unit per milliliter**
200	[APL'U]	IgA anticardiolipin unit**
201	{APS'U}	IgA antiphosphatidylserine unit
202	[GPL'U]/mL	IgG anticardiolipin unit per milliliter**
203	[GPL'U]	IgG anticardiolipin unit**

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
204	{GPS'U}	IgG antiphosphatidylserine unit
205	[MPL'U]/mL	IgM anticardiolipin unit per milliliter**
206	[MPL'U]	IgM anticardiolipin unit**
207	{MPS'U}	IgM antiphosphatidylserine unit
208	{MPS'U}/mL	IgM antiphosphatidylserine unit per milliliter
209	{ImmuneComplex'U}	immune complex unit
210	{ISR}	immune status ratio
211	{IFA_index}	immunofluorescence assay index
212	{IFA_titer}	Immunofluorescence assay titer
213	[in_i]	inch (international)
214	[in_i'H2O]	inch (international) of water
0215	[in_us]	inches (US)
216	{index_val}	index value
0217	{index}	index value
218	{HA_titer}	influenza hemagglutination titer
219	{INR}	international normalized ratio
220	[IU]	international unit
221	[IU]/(2.h)	international unit per 2 hour
222	[IU]/(24.h)	international unit per 24 hour
223	[IU]/10*9{RBCs}	international unit per billion red blood cells
224	[IU]/d	international unit per day
225	[IU]/dL	international unit per deciliter
226	[IU]/g	international unit per gram
227	[IU]/g{Hb}	international unit per gram of hemoglobin
228	[IU]/h	international unit per hour

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
229	[IU]/kg	international unit per kilogram
230	[IU]/kg/d	international unit per kilogram per day
231	[IU]/L	international unit per liter
232	[IU]/L{37Cel}	international unit per liter at 37 degrees Celsius
233	[IU]/mg{creat}	international unit per milligram of creatinine
234	[IU]/mL	international unit per milliliter
235	[IU]/min	international unit per minute
236	J	joule
237	J/L	joule per liter
238	{JDF'U}	Juvenile Diabetes Foundation unit
239	{JDF'U}/L	Juvenile Diabetes Foundation unit per liter
240	{KCT'U}	kaolin clotting time
241	kat	katal
242	kat/kg	katal per kilogram
243	kat/L	katal per liter
244	kU	kilo enzyme unit
245	kU/g	kilo enzyme unit per gram
246	kU/L	kilo enzyme unit per liter
247	kU/L{class}	kilo enzyme unit per liter class
248	kU/mL	kilo enzyme unit per milliliter
249	k[IU]/L	kilo international unit per liter
250	k[IU]/mL	kilo international unit per milliliter
251	kcal	kilocalorie
0252	kcal/(24.h)	kilocalorie per 24 hour
253	kcal/d	kilocalorie per day
254	kcal/h	kilocalorie per hour

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
255	kcal/kg/(24.h)	kilocalorie per kilogram per 24 hour
256	kcal/[oz_av]	kilocalorie per ounce (US & British)
257	kg	kilogram
258	kg.m/s	kilogram meter per second
259	kg/m3	kilogram per cubic meter
260	kg/h	kilogram per hour
261	kg/L	kilogram per liter
262	kg/min	kilogram per minute
263	kg/mol	kilogram per mole
264	kg/s	kilogram per second
265	kg/(s.m2)	kilogram per second per square meter
266	kg/m2	kilogram per square meter
267	kL	kiloliter
268	km	kilometer
269	kPa	kilopascal
270	ks	kilosecond
271	[ka'U]	King Armstrong unit
272	{KRONU'U}/mL	Kronus unit per milliliter
273	[knk'U]	Kunkel unit
274	L	liter
275	L/(24.h)	liter per 24 hour
276	L/(8.h)	liter per 8 hour
277	L/d	liter per day
278	L/h	liter per hour
279	L/kg	liter per kilogram
280	L/L	liter per liter

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
281	L/min	liter per minute
282	L/min/m2	liter per minute per square meter
0283	L/(min.m2)	liter per minute per square meter
284	L/s	liter per second
285	L/s/s2	liter per second per square second
286	{Log_copies}/mL	log (base 10) copies per milliliter
287	{Log_IU}	log (base 10) international unit
288	{Log_IU}/mL	log (base 10) international unit per milliliter
289	{Log}	log base 10
290	[LPF]	low power field
291	lm	lumen
292	lm.m2	lumen square meter
293	{Lyme_index_value}	Lyme index value
294	[mclg'U]	Maclagan unit
295	Ms	megasecond
0296	[MET].min/wk	metabolic equivalent minute per week
297	m	meter
298	m/s	meter per second
299	m/s2	meter per square second
300	t	metric ton
301	uU/g	micro enzyme unit per gram
302	uU/L	micro enzyme unit per liter
303	uU/mL	micro enzyme unit per milliliter
304	u[IU]	micro international unit
305	u[IU]/mL	micro international unit per milliliter
306	ueq	microequivalent

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
307	ueq/L	microequivalent per liter
308	ueq/mL	microequivalent per milliliter
309	ug	microgram
310	ug/g{feces}	microgram per gram of feces
311	ug{FEU}/mL	microgram fibrinogen equivalent unit per milliliter
312	ug/(100.g)	microgram per 100 gram
313	ug/(24.h)	microgram per 24 hour
314	ug/(8.h)	microgram per 8 hour
315	ug/m3	microgram per cubic meter
316	ug/d	microgram per day
317	ug/dL	microgram per deciliter
318	ug/dL{RBCs}	microgram per deciliter of red blood cells
319	ug/g	microgram per gram
320	ug/g{creat}	microgram per gram of creatinine
321	ug/g{dry_tissue}	microgram per gram of dry tissue
322	ug/g{dry_wt}	microgram per gram of dry weight
323	ug/g{hair}	microgram per gram of hair
324	ug/g{Hb}	microgram per gram of hemoglobin
325	ug/g{tissue}	microgram per gram of tissue
326	ug/h	microgram per hour
327	ug/kg	microgram per kilogram
328	ug/kg/(8.h)	microgram per kilogram per 8 hour
329	ug/kg/d	microgram per kilogram per day
330	ug/kg/h	microgram per kilogram per hour
331	ug/kg/min	microgram per kilogram per minute

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
332	ug/L	microgram per liter
333	ug/L{RBCs}	microgram per liter of red blood cells
334	ug/L/(24.h)	microgram per liter per 24 hour
335	ug/mg	microgram per milligram
336	ug/mg{creat}	microgram per milligram of creatinine
337	ug/mL	microgram per milliliter
338	ug/mL{class}	microgram per milliliter class
339	ug/mL{eqv}	microgram per milliliter equivalent
340	ug/mmol	microgram per millimole
341	ug/mmol{creat}	microgram per millimole of creatinine
342	ug/min	microgram per minute
343	ug/ng	microgram per nanogram
344	ug/{specimen}	microgram per specimen
345	ug/[sft_i]	microgram per square foot (international)
346	ug/m2	microgram per square meter
347	u[IU]/L	microinternational unit per liter
348	ukat	microkatal
349	uL	microliter
350	uL/(2.h)	microliter per 2 hour
351	uL/h	microliter per hour
352	um	micrometer
353	umol	micromole
354	umol{BCE}/mol	micromole bone collagen equivalent per mole
355	umol/(2.h)	micromole per 2 hour
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)
358	umol/d	micromole per day
359	umol/dL	micromole per deciliter
360	umol/dL{GF}	micromole per deciliter of glomerular filtrate
361	umol/g	micromole per gram
362	umol/g{creat}	micromole per gram of creatinine
363	umol/g{Hb}	micromole per gram of hemoglobin
364	umol/h	micromole per hour
365	umol/kg	micromole per kilogram
366	umol/kg{feces}	micromole per kilogram of feces
367	umol/L	micromole per liter
368	umol/L{RBCs}	micromole per liter of red blood cells
369	umol/L/h	micromole per liter per hour
370	umol/umol	micromole per micromole
371	umol/umol{creat}	micromole per micromole of creatinine
372	umol/mg	micromole per milligram
373	umol/mg{creat}	micromole per milligram of creatinine
374	umol/mL	micromole per milliliter
375	umol/mL/min	micromole per milliliter per minute
376	umol/mmol	micromole per millimole
377	umol/mmol{creat}	micromole per millimole of creatinine
378	umol/10 ⁶ {RBC}	micromole per million red blood cell
379	umol/min	micromole per minute
380	umol/min/g	micromole per minute per gram
381	umol/min/g{mucosa}	micromole per minute per gram of mucosa
382	umol/min/g{prot}	micromole per minute per gram of protein
383	umol/min/L	micromole per minute per liter

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
384	umol/mol	micromole per mole
385	umol/mol{creat}	micromole per mole of creatinine
386	umol/mol{Hb}	micromole per mole of hemoglobin
387	um/s	microns per second
388	uOhm	microOhm
389	us	microsecond
390	uV	microvolt
391	[mi_i]	mile (international)
392	mU/g	milli enzyme unit per gram
393	mU/mL	milli enzyme unit per milliliter
394	mU/mL/min	milli enzyme unit per milliliter per minute
395	mU/mmol{creat}	milli enzyme unit per millimole of creatinine
396	mU/mmol{RBCs}	milli enzyme unit per millimole of red blood cells
397	m[IU]/mL	milli international unit per milliliter
398	mU/g{Hb}	milli enzyme unit per gram of hemoglobin
399	mU/g{prot}	milli enzyme unit per gram of protein
400	mU/L	milli enzyme unit per liter
401	mU/mg	milli enzyme unit per milligram
402	mU/mg{creat}	milli enzyme unit per milligram of creatinine
403	m[IU]/L	milli international unit per liter
404	mA	milliampere
405	mbar	millibar
406	mbar/L/s	millibar per liter per second
407	mbar.s/L	millibar second per liter
408	meq	milliequivalent

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

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
409	meq/(2.h)	milliequivalent per 2 hour
410	meq/(24.h)	milliequivalent per 24 hour
411	meq/(8.h)	milliequivalent per 8 hour
412	meq/d	milliequivalent per day
413	meq/dL	milliequivalent per deciliter
414	meq/g	milliequivalent per gram
415	meq/g{creat}	milliequivalent per gram of creatinine
416	meq/h	milliequivalent per hour
417	meq/kg	milliequivalent per kilogram
418	meq/kg/h	milliequivalent per kilogram per hour
419	meq/L	milliequivalent per liter
420	meq/mL	milliequivalent per milliliter
421	meq/min	milliequivalent per minute
422	meq/{specimen}	milliequivalent per specimen
423	meq/m2	milliequivalent per square meter
424	meq/{total_volume}	milliequivalent per total volume
425	mg	milligram
426	mg{FEU}/L	milligram fibrinogen equivalent unit per liter
427	mg/(10.h)	milligram per 10 hour
428	mg/(12.h)	milligram per 12 hour
429	mg/(2.h)	milligram per 2 hour
430	mg/(24.h)	milligram per 24 hour
431	mg/(6.h)	milligram per 6 hour
432	mg/(72.h)	milligram per 72 hour
433	mg/(8.h)	milligram per 8 hour
434	mg/{collection}	milligram per collection

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
435	mg/m3	milligram per cubic meter
436	mg/d	milligram per day
437	mg/d/{1.73_m2}	milligram per day per 1.73 square meter
438	mg/dL	milligram per deciliter
439	mg/dL{RBCs}	milligram per deciliter of red blood cells
440	mg/g	milligram per gram
441	mg/g{creat}	milligram per gram of creatinine
442	mg/g{dry_tissue}	milligram per gram of dry tissue
443	mg/g{feces}	milligram per gram of feces
444	mg/g{tissue}	milligram per gram of tissue
445	mg/g{wet_tissue}	milligram per gram of wet tissue
446	mg/h	milligram per hour
447	mg/kg	milligram per kilogram
448	mg/kg/(8.h)	milligram per kilogram per 8 hour
449	mg/kg/d	milligram per kilogram per day
450	mg/kg/h	milligram per kilogram per hour
451	mg/kg/min	milligram per kilogram per minute
452	mg/L	milligram per liter
453	mg/L{RBCs}	milligram per liter of red blood cells
454	mg/mg	milligram per milligram
455	mg/mg{creat}	milligram per milligram of creatinine
456	mg/mL	milligram per milliliter
457	mg/mmol	milligram per millimole
458	mg/mmol{creat}	milligram per millimole of creatinine
459	mg/min	milligram per minute
460	mg/{specimen}	milligram per specimen

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
461	mg/m2	milligram per square meter
462	mg/{total_output}	milligram per total output
463	mg/{total_volume}	milligram per total volume
464	mg/wk	milligram per week
465	mL	milliliter
466	mL{fetal_RBCs}	milliliter of fetal red blood cells
467	mL/(10.h)	milliliter per 10 hour
468	mL/(12.h)	milliliter per 12 hour
469	mL/(2.h)	milliliter per 2 hour
470	mL/(24.h)	milliliter per 24 hour
471	mL/(4.h)	milliliter per 4 hour
472	mL/(5.h)	milliliter per 5 hour
473	mL/(6.h)	milliliter per 6 hour
474	mL/(72.h)	milliliter per 72 hour
475	mL/(8.h)	milliliter per 8 hour
476	mL/(8.h)/kg	milliliter per 8 hour per kilogram
477	mL/cm[H2O]	milliliter per centimeter of water
478	mL/d	milliliter per day
479	mL/dL	milliliter per deciliter
480	mL/{beat}	milliliter per heart beat
481	mL/{beat}/m2	milliliter per heart beat per square meter
482		
483	mL/kg	milliliter per kilogram
484	mL/kg/(8.h)	milliliter per kilogram per 8 hour
485	mL/kg/d	milliliter per kilogram per day
486	mL/kg/h	milliliter per kilogram per hour

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
487	mL/kg/min	milliliter per kilogram per minute
488	mL/mbar	milliliter per millibar
489	mL/mm	milliliter per millimeter
490	mL/min	milliliter per minute
491	mL/min/{1.73_m2}	milliliter per minute per 1.73 square meter
492	mL/min/m2	milliliter per minute per square meter
493	mL/s	milliliter per second
494	mL/[sin_i]	milliliter per square inch (international)
495	mL/m2	milliliter per square meter
496	mm	millimeter
497	mm[Hg]	millimeter of mercury
498	mm[H2O]	millimeter of water
499	mm/h	millimeter per hour
500	mm/min	millimeter per minute
501	mmol	millimole
502	mmol/(12.h)	millimole per 12 hour
503	mmol/(2.h)	millimole per 2 hour
504	mmol/(24.h)	millimole per 24 hour
505	mmol/(5.h)	millimole per 5 hour
506	mmol/(6.h)	millimole per 6 hour
507	mmol/(8.h)	millimole per 8 hour
508	mmol/d	millimole per day
509	mmol/dL	millimole per deciliter
510	mmol/{ejaculate}	millimole per ejaculate
511	mmol/g	millimole per gram
512	mmol/g{creat}	millimole per gram of creatinine

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
513	mmol/h	millimole per hour
514	mmol/h/mg{Hb}	millimole per hour per milligram of hemoglobin
515	mmol/h/mg{prot}	millimole per hour per milligram of protein
516	mmol/kg	millimole per kilogram
517	mmol/kg/(8.h)	millimole per kilogram per 8 hour
518	mmol/kg/d	millimole per kilogram per day
519	mmol/kg/h	millimole per kilogram per hour
520	mmol/kg/min	millimole per kilogram per minute
521	mmol/L	millimole per liter
522	mmol/L{RBCs}	millimole per liter of red blood cells
523	mmol/mmol	millimole per millimole
524	mmol/mmol{urea}	millimole per millimole of urea
525	mmol/mmol{creat}	millimole per millimole of creatinine
526	mmol/min	millimole per minute
527	mmol/mol	millimole per mole
528	mmol/mol{creat}	millimole per mole of creatinine
529	mmol/s/L	millimole per second per liter
530	mmol/{specimen}	millimole per specimen
531	mmol/m2	millimole per square meter
532	mmol/{total_vol}	millimole per total volume
533	10*6	million
534	10*6.[CFU]/L	million colony forming unit per liter
535	10*6.[IU]	million international unit
536	10*6/(24.h)	million per 24 hour
537	10*6/kg	million per kilogram
538	10*6/L	million per liter

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
539	10*6/uL	million per microliter
540	10*6/mL	million per milliliter
541	mosm	milliosmole
542	mosm/kg	milliosmole per kilogram
543	mosm/L	milliosmole per liter
544	mPa	millipascal
545	mPa.s	millipascal second
546	ms	millisecond
547	mV	millivolt
548	mV/s	millivolt per second
549	{minidrop}/min	minidrop per minute
550	{minidrop}/s	minidrop per second
551	min	minute
552	min/d	minute per day
553	min/wk	minute per week
554	mol	mole
555	mol/m3	mole per cubic meter
556	mol/kg	mole per kilogram
557	mol/kg/s	mole per kilogram per second
558	mol/L	mole per liter
559	mol/mL	mole per milliliter
560	mol/mol	mole per mole
561	mol/s	mole per second
562	{#}/{platelet}	molecule per platelet
563	mo	month
564	{mm/dd/yyyy}	month-day-year

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
565	{M.o.M}	multiple of the median
566	{mutation}	mutation
567	nU/mL	nanoenzyme unit per milliliter
568	nU/{RBC}	nanoenzyme unit per red blood cell
569	ng	nanogram
570	ng{FEU}/mL	nanogram fibrinogen equivalent unit per milliliter
571	ng/(24.h)	nanogram per 24 hour
572	ng/(8.h)	nanogram per 8 hour
573	ng/d	nanogram per day
574	ng/dL	nanogram per deciliter
575	ng/U	nanogram per enzyme unit
576	ng/g	nanogram per gram
577	ng/g{creat}	nanogram per gram of creatinine
578	ng/h	nanogram per hour
579	ng/kg	nanogram per kilogram
580	ng/kg/(8.h)	nanogram per kilogram per 8 hour
581	ng/kg/h	nanogram per kilogram per hour
582	ng/kg/min	nanogram per kilogram per minute
583	ng/L	nanogram per liter
584	ng/mg	nanogram per milligram
585	ng/mg{creat}	nanogram per milligram of creatinine
586	ng/mg{prot}	nanogram per milligram of protein
587	ng/mg/h	nanogram per milligram per hour
588	ng/mL{RBCs}	nanogram per milliliter of red blood cells
589	ng/mL/h	nanogram per milliliter per hour

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
590	ng/10*6	nanogram per million
591	ng/10*6{RBCs}	nanogram per million red blood cells
592	ng/mL	nanogram per milliliter
593	ng/min	nanogram per minute
594	ng/s	nanogram per second
595	ng/m2	nanogram per square meter
596	nkat	nanokatal
597	nL	nanoliter
598	nm	nanometer
599	nm/s/L	nanometer per second per liter
600	nmol	nanomole
601	nmol{BCE}	nanomole bone collagen equivalent
602	nmol{BCE}/L	nanomole bone collagen equivalent per liter
603	nmol/mmol{creat}	nanomole bone collagen equivalent per millimole of creatinine
604	nmol/mg{prot}	nanomole of 1/2 cystine per milligram of protein
605	nmol{ATP}	nanomole of ATP
606	nmol/(24.h)	nanomole per 24 hour
607	nmol/d	nanomole per day
608	nmol/dL	nanomole per deciliter
609	nmol/dL{GF}	nanomole per deciliter of glomerular filtrate
610	nmol/g	nanomole per gram
611	nmol/g{creat}	nanomole per gram of creatinine
612	nmol/g{dry_wt}	nanomole per gram of dry weight
613	nmol/h/L	nanomole per hour per liter
614	nmol/h/mg{prot}	nanomole per hour per milligram of protein

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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
◊616	nmol/h/mL	nanomole per hour per milliliter
617	nmol/L	nanomole per liter
618	nmol/L{RBCs}	nanomole per liter of red blood cells
619	nmol/L/mmol{creat}	nanomole per liter per millimole of creatinine
620	nmol/m/mg{prot}	nanomole per meter per milligram of protein
621	nmol/umol{creat}	nanomole per micromole of creatinine
622	nmol/mg	nanomole per milligram
623	nmol/mg{creat}	nanomole per milligram of creatinine
624	nmol/mg{prot}	nanomole per milligram of protein
625	nmol/mg{prot}/h	nanomole per milligram of protein per hour
626	nmol/mg/h	nanomole per milligram per hour
627	nmol/mL	nanomole per milliliter
628	nmol/mL/h	nanomole per milliliter per hour
629	nmol/mL/min	nanomole per milliliter per minute
630	nmol/mmol	nanomole per millimole
631	nmol/mmol{creat}	nanomole per millimole of creatinine
632	nmol/min	nanomole per minute
633	nmol/min/mg{Hb}	nanomole per minute per milligram of hemoglobin
◊634	nmol/min/mg{prot}	nanomole per minute per milligram of protein
635	nmol/min/mg{protein}	nanomole per minute per milligram protein
636	nmol/min/mL	nanomole per minute per milliliter
637	nmol/min/10*6{cells}	nanomole per minute per million cells
638	nmol/mol	nanomole per mole
◊639	nmol/mol{creat}	nanomole per mole creatinine
640	nmol/nmol	nanomole per nanomole

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
641	nmol/s	nanomole per second
642	nmol/s/L	nanomole per second per liter
643	ns	nanosecond
644	N	Newton
645	N.cm	Newton centimeter
646	N.s	Newton second
647	{#}	number
◊648	{#}/a	number per annum (year)
◊649	{#}/d	number per day
◊650	{#}/g	number per gram
651	{#}/[HPF]	number per high power field
652	{#}/L	number per liter
653	{#}/[LPF]	number per low power field
654	{#}/uL	number per microliter
655	{#}/mL	number per milliliter
656	{#}/min	number per minute
◊657	{#}/wk	number per week
658	Ohm	Ohm
659	Ohm.m	Ohm meter
660	10*5	one hundred thousand
661	{OD_unit}	optical density unit
662	osm	osmole
663	osm/kg	osmole per kilogram
664	osm/L	osmole per liter
665	[oz_av]	ounce (US and British)
666	{Pan_Bio'U}	panbio unit

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
667	[ppb]	part per billion
668	[ppm]	part per million
669	[ppm]{v/v}	part per million in volume per volume
670	[ppth]	part per thousand
671	[pptr]	part per trillion
672	Pa	Pascal
673	/10*10	per 10 billion
674	/10*4{RBCs}	per 10 thousand red blood cells
675	/100	per 100
676	/100{cells}	per 100 cells
677	/100{neutrophils}	per 100 neutrophils
678	/100{spermatozoa}	per 100 spermatozoa
679	/100{WBCs}	per 100 white blood cells
680	/[arb'U]	per arbitrary unit
681	/10*9	per billion
682	/cm[H2O]	per centimeter of water
683	/m3	per cubic meter
684	/d	per day
685	/dL	per deciliter
686	/[entity]	per entity
687	/U	per enzyme unit
688	/g	per gram
689	/g{creat}	per gram of creatinine
690	/g{Hb}	per gram of hemoglobin
691	/g{tot_nit}	per gram of total nitrogen
692	/g{tot_prot}	per gram of total protein

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
693	/g{wet_tis}	per gram of wet tissue
694	/[HPF]	per high power field
695	/h	per hour
696	/[IU]	per international unit
697	/kg	per kilogram
698	/kg{body_wt}	per kilogram of body weight
699	/L	per liter
700	/[LPF]	per low power field
701	/uL	per microliter
702	/mg	per milligram
703	/mL	per milliliter
704	/mm	per millimeter
705	/mmol{creat}	per millimole of creatinine
706	/10*6	per million
707	/min	per minute
708	/mo	per month
709	/[OIF]	per oil immersion field
710	/s	per second
711	/m2	per square meter
712	/10*3	per thousand
713	/10*3{RBCs}	per thousand red blood cells
714	/10*12	per trillion
715	/10*12{RBCs}	per trillion red blood cells
716	/[12.h]	per twelve hour
717	/wk	per week
718	/a	per year

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
719	%	percent
720	%{loss_AChR}	percent loss of acetylcholine receptor
721	%{penetration}	percent penetration
722	%{abnormal}	percent abnormal
723	%{activity}	percent activity
724	%{aggregation}	percent aggregation
725	%{at_60_min}	percent at 60 minute
726	%{basal_activity}	percent basal activity
727	%{binding}	percent binding
728	%{blockade}	percent blockade
729	%{blocked}	percent blocked
730	%{bound}	percent bound
731	%{breakdown}	percent breakdown
732	%{vol}	percent by volume
733	%{deficient}	percent deficient
734	%{dose}	percent dose
735	%{excretion}	percent excretion
736	%{Hb}	percent hemoglobin
737	%{hemolysis}	percent hemolysis
738	%{index}	percent index
739	%{inhibition}	percent inhibition
740	%{loss}	percent loss
741	%{lysis}	percent lysis
742	%{normal}	percent normal
743	%{pooled_plasma}	percent normal pooled plasma
744	%{bacteria}	percent of bacteria

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
745	%{baseline}	percent of baseline
746	%{cells}	percent of cells
747	%{RBCs}	percent of red blood cells
748	%{WBCs}	percent of white blood cells
749	%{positive}	percent positive
750	%{reactive}	percent reactive
751	%{recovery}	percent recovery
752	%{reference}	percent reference
753	%{residual}	percent residual
754	%{response}	percent response
755	%{saturation}	percent saturation
756	%{total}	percent total
757	%{uptake}	percent uptake
758	%{viable}	percent viable
759	{percentile}	percentile
760	[pH]	pH
761	{phenotype}	phenotype
762	pA	picoampere
763	pg	picogram
764	pg/{cell}	picogram per cell
765	pg/dL	picogram per deciliter
766	pg/L	picogram per liter
767	pg/mg	picogram per milligram
768	pg/mg{creat}	picogram per milligram of creatinine
769	pg/mL	picogram per milliliter
770	pg/mL{sLT}	picogram per milliliter sulfidoleukotrienes

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
771	pg/mm	picogram per millimeter
772	pg/{RBC}	picogram per red blood cell
773	pkat	picokatal
774	pL	picoliter
775	pm	picometer
776	pmol	picomole
777	pmol/(24.h)	picomole per 24 hour
778	pmol/d	picomole per day
779	pmol/dL	picomole per deciliter
780	pmol/g	picomole per gram
◊781	pmol/h/mg{prot}	picomole per hour per milligram of protein
782	pmol/h/mL	picomole per hour per milliliter
783	pmol/L	picomole per liter
784	pmol/umol	picomole per micromole
785	pmol/umol{creat}	picomole per micromole of creatinine
786	pmol/mg{prot}	picomole per milligram of protein
787	pmol/mL	picomole per milliliter
788	pmol/mmol{creat}	picomole per millimole of creatinine
789	pmol/min	picomole per minute
790	pmol/min/mg{prot}	picomole per minute per milligram of protein
791	pmol/{RBC}	picomole per red blood cell
792	ps	picosecond
793	pT	picotesla
794	[pt_us]	pint (US)
795	[lb_av]	pound (US and British)
796	[psi]	pound per square inch

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
797	[qt_us]	quart (US)
798	{ratio}	Ratio
799	{RBC}/uL	red blood cell per microliter
800	%{relative}	relative percent
801	{rel_saturation}	relative saturation
◊802	{risk}	Risk
803	{Rubella_virus}	rubella virus
804	{saturation}	Saturation
◊805	{score}	Score
806	s	second
807	s/{control}	second per control
808	{shift}	Shift
809	S	Siemens
810	Sv	Sievert
811	{s_co_ratio}	signal to cutoff ratio
812	{spermatozoa}/mL	spermatozoa per milliliter
813	cm2	square centimeter
814	cm2/s	square centimeter per second
815	dm2/s2	square decimeter per square second
816	[sft_i]	square foot (international)
817	[sin_i]	square inch (international)
818	m2	square meter
819	m2/s	square meter per second
829	mm2	square millimeter
821	[syd_i]	square yard (international)
822	{STDV}	standard deviation

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

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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)
Ø823	{Tscore}	t score
824	[tbs_us]	tablespoon (US)
825	[tsp_us]	teaspoon (US)
826	T	Tesla
827	10*3	thousand
828	10*3{copies}/mL	thousand copies per milliliter
829	10*3/L	thousand per liter
830	10*3/uL	thousand per microliter
831	10*3/mL	thousand per milliliter
832	10*3{RBCs}	thousand red blood cells
833	{TSl_index}	thyroid-stimulating immunoglobulin index
Ø834	{TmStp}	time stamp
835	{titer}	titer

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
836	[todd'U]	Todd unit
837	Torr	Torr
838	10*12/L	trillion per liter
839	[oz_tr]	Troy ounce
840	[tb'U]	tuberculin unit
841	V	volt
842	Wb	Weber
843	wk	week
844	{WBCs}	white blood cells
845	[yd_i]	yard (international)
846	a	year
Ø847	{yyyy}	year
Ø848	{Zscore}	z score

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

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

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 correct ion (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	<i>Addition</i>
39	cm/s	centimeter per second	6/2020	BEM	39	N/A	<i>Addition</i>
55	cm3	cubic centimeter	6/2020	BEM	55	N/A	<i>Addition</i>
58	{Ct_value}	Cycle threshold value	6/2020	BEM	58	N/A	<i>Addition</i>
60	d/(7.d)	day per 7 day	6/2020	BEM	60	N/A	<i>Addition</i>
61	d/wk	days per week	6/2020	BEM	61	N/A	<i>Addition</i>
75	[diop]	Diopter	6/2020	BEM	75	N/A	<i>Addition</i>
127	[ft_us]/[ft_us]	feet (US) per feet (US)	6/2020	BEM	127	N/A	<i>Addition</i>
187	g/cm2	gram per square centimeter	6/2020	BEM	187	N/A	<i>Addition</i>
197	h/d	hour per day	6/2020	BEM	197	N/A	<i>Addition</i>
198	h/wk	hour per week	6/2020	BEM	198	N/A	<i>Addition</i>
215	[in_us]	inches (US)	6/2020	BEM	215	N/A	<i>Addition</i>
217	{index}	index value	6/2020	BEM	217	N/A	<i>Addition</i>
252	kcal/(24.h)	kilocalorie per 24 hour	6/2020	BEM	252	N/A	<i>Addition</i>
283	L/min/m2	liter per minute per square meter	6/2020	BEM	283	N/A	<i>Addition</i>
296	[MET].min/wk	metabolic equivalent minute per week	6/2020	BEM	296	N/A	<i>Addition</i>
378	umol/10*6{RBC}	micromole per million red blood cell	6/2020	BEM	378	N/A	<i>Addition</i>
548	mV/s	millivolt per second	6/2020	BEM	548	N/A	<i>Addition</i>
552	min/d	minute per day	6/2020	BEM	552	N/A	<i>Addition</i>
553	min/wk	minute per week	6/2020	BEM	553	N/A	<i>Addition</i>
616	nmol/h/mL	nanomole per hour per milliliter	6/2020	BEM	616	N/A	<i>Addition</i>
634	nmol/min/mg{pr otein}	nanomole per minute per milligram protein	6/2020	BEM	634	N/A	<i>Addition</i>
639	nmol/mol{creat}	nanomole per mole creatinine	6/2020	BEM	639	N/A	<i>Addition</i>

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

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

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}	picrogram 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 correct ion (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 correct ion (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.

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

6/2020

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

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

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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_CO DE	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
{ImmuneCo mplex'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
[mcIg'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.

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

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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

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