

Fatty Acids and Related Masses

For HRAM MS, Masses of ions now include loss or gain of a mole of electrons per mole of ions for = +/- 0.00054486 g/mol

Systematic Fatty Acid Name	Common Fatty Acid Name	Abbrev.	Fatty Acid Mass			Fatty Acid	Methyl Ester	[RCOO+58] ⁺	[RCOO+58-H ₂ O] ⁺	[RCO] ⁺	[RCO-H ₂ O] ⁺	[RCOO] ⁻	Pure	Pure	Pure	Pure
			C	U	ECN			[RCO+74] ⁺	[RCO+74-H ₂ O] ⁺				Triglyceride	Triglyceride	Diglyceride	Diglyceride
													(- mode)	Nominal	Nominal	Nominal
Butanoic acid	Butyric acid	Bu	4	0	4	88.0524	102.0681	145.0859	127.0748	71.0491	53.0380	87.0452	302.1729	302	215.1283	215
Pentanoic acid	Valeric acid	V	5	0	5	102.0681	116.0837	159.1021	141.0916	85.0653	67.0548	101.0603	344.2199	344	243.1596	243
Hexanoic acid	Caproic acid	Co	6	0	6	116.0837	130.0994	173.1178	155.1072	99.0810	81.0704	115.0759	386.2668	386	271.1909	271
Heptanoic acid	Enanthic acid	En	7	0	7	130.0994	144.1150	187.1334	169.1229	113.0966	95.0861	129.0916	428.3138	428	299.2222	299
Octanoic acid	Caprylic acid	Cy	8	0	8	144.1150	158.1307	201.1491	183.1385	127.1123	109.1017	143.1072	470.3607	470	327.2535	327
Nonanoic acid	Pelargonic acid		9	0	9	158.1307	172.1463	215.1647	197.1542	141.1279	123.1174	157.1229	512.4077	512	355.2848	355
Decanoic acid	Capric acid	Ca	10	0	10	172.1463	186.1620	229.1804	211.1698	155.1436	137.1330	171.1385	554.4546	554	383.3161	383
Hendecanoic acid	Undecylic acid		11	0	11	186.1620	200.1776	243.1960	225.1855	169.1592	151.1487	185.1542	596.5016	596	411.3474	411
Dodecanoic acid	Lauric acid	La	12	0	12	200.1776	214.1933	257.2117	239.2011	183.1749	165.1643	199.1698	638.5485	638	439.3787	439
Tridecanoic acid	Tridecyl acid		13	0	13	214.1933	228.2089	271.2273	253.2168	197.1905	179.1800	213.1855	680.5955	680	467.4100	467
Tetradecanoic acid	Myristic acid	M	14	0	14	228.2089	242.2246	285.2430	267.2324	211.2062	193.1956	227.2011	722.6424	722	495.4413	495
Pentadecanoic acid	Pentadecylic acid		15	0	15	242.2246	256.2402	299.2586	281.2481	225.2218	207.2113	241.2168	764.6894	764	523.4726	523
Hexadecanoic acid	Palmitic acid	P	16	0	16	256.2402	270.2559	313.2743	295.2637	239.2375	221.2269	255.2324	806.7363	806	551.5039	551
c-9-Hexadecenoic acid	Palmitoleic acid (n-7)	Po	16	1	14	254.2246	268.2402	311.2586	293.2481	237.2218	219.2113	253.2168	800.6894	800	547.4726	547
t-9-Hexadecenoic acid	Palmitelaic acid (n-7)	Pe	16	1	14	254.2246	268.2402	311.2586	293.2481	237.2218	219.2113	253.2168	800.6894	800	547.4726	547
Heptadecanoic acid	Margaric acid		17	0	17	270.2559	284.2715	327.2899	309.2794	253.2531	235.2426	269.2481	848.7833	848	579.5352	579
Octadecanoic acid	Stearic acid	S	18	0	18	284.2715	298.2872	341.3056	323.2950	267.2688	249.2582	283.2637	890.8302	890	607.5665	607
c-9-Octadecenoic acid	Oleic acid (n-9)	O	18	1	16	282.2559	296.2715	339.2899	321.2794	265.2531	247.2426	281.2481	884.7833	884	603.5352	603
t-9-Octadecenoic acid	Elaidic acid (n-9)	El	18	1	16	282.2559	296.2715	339.2899	321.2794	265.2531	247.2426	281.2481	884.7833	884	603.5352	603
c-9,12-Octadecadienoic acid	Linoleic acid (ω-6)	L	18	2	14	280.2402	294.2559	337.2743	319.2637	263.2375	245.2269	279.2324	878.7363	878	599.5039	599
c-9,12,15-Octadecatrienoic acid	α-Linolenic acid (ω-3)	Ln	18	3	12	278.2246	292.2402	335.2586	317.2481	261.2218	243.2113	277.2168	872.6894	872	595.4726	595
c-6,9,12-Octadecatrienoic acid	γ-Linolenic acid (ω-6) = GLA	γ-Ln	18	3	12	278.2246	292.2402	335.2586	317.2481	261.2218	243.2113	277.2168	872.6894	872	595.4726	595
9c,11f,13f-Octadecatrienoic acid	α-Eleostearic acid	Eo	18	3	12	278.2246	292.2402	335.2586	317.2481	261.2218	243.2113	277.2168	872.6894	872	595.4726	595
9f,11f,13f-Octadecatrienoic acid	β-Eleostearic acid		18	3	12	278.2246	292.2402	335.2586	317.2481	261.2218	243.2113	277.2168	872.6894	872	595.4726	595
8c,10t,12c-Octadecatrienoic acid	Jacaric acid	Ja	18	3	12	278.2246	292.2402	335.2586	317.2481	261.2218	243.2113	277.2168	872.6894	872	595.4726	595
9f,11f,13c-Octadecatrienoic acid	Catalpic acid	Ct	18	3	12	278.2246	292.2402	335.2586	317.2481	261.2218	243.2113	277.2168	872.6894	872	595.4726	595
c-6,9,12,15-Octadecatetraenoic acid	Stearidonic acid (ω-3)	St	18	4	10	276.2089	290.2246	333.2430	315.2324	259.2062	241.1956	275.2011	866.8424	866	591.4413	591
Nonadecanoic acid	Nonadecylic acid		19	0	19	298.2872	312.3028	355.3212	337.3107	281.2844	263.2739	297.2794	932.8772	932	635.5978	635
Eicosanoic acid	Arachidic acid	A	20	0	20	312.3028	326.3185	369.3369	351.3263	295.3001	277.2895	311.2950	974.9241	974	663.6291	663
c-9-Eicosenoic acid	Gadoleic acid (n-11)	G	20	1	18	310.2872	324.3028	367.3212	349.3107	293.2844	275.2739	309.2794	968.8772	968	659.5978	659
c-11-Eicosenoic acid	Gondoic acid (n-9)	Go	20	1	18	310.2872	324.3028	367.3212	349.3107	293.2844	275.2739	309.2794	968.8772	968	659.5978	659
c-11,14-Eicosadienoic acid	DihomoLinoleic acid (ω-6)	C _{20:2}	20	2	16	308.2715	322.2872	365.3056	347.2950	291.2688	273.2582	307.2637	962.8302	962	655.5665	655
c-11,14,17-Eicosatrienoic acid	Bis-homo-α-Linolenic acid (ω-3), ETA	C _{20:3}	20	3	14	306.2559	320.2715	363.2899	345.2794	289.2531	271.2426	305.2481	956.7833	956	651.5352	651
c-8,11,14-Eicosatrienoic acid	Bis-homo-γ-Linolenic acid (ω-6)	C _{20:3}	20	3	14	306.2559	320.2715	363.2899	345.2794	289.2531	271.2426	305.2481	956.7833	956	651.5352	651
c-5,8,11-Eicosatrienoic acid	Mead Acid	C _{20:3}	20	3	14	306.2559	320.2715	363.2899	345.2794	289.2531	271.2426	305.2481	956.7833	956	651.5352	651
c-5,8,11,14-Eicosatetraenoic acid	Arachidonic acid (ω-6)	Ao	20	4	12	304.2402	318.2559	361.2743	343.2637	287.2375	269.2269	303.2324	950.7363	950	647.5039	647
c-8,11,14,17-Eicosatetraenoic acid	Eicosatetraenoic acid (ω-3)	C _{20:4}	20	4	12	304.2402	318.2559	361.2743	343.2637	287.2375	269.2269	303.2324	950.7363	950	647.5039	647
c-5,8,11,14,17-Eicosapentaenoic acid	EPA (ω-3)	Ep	20	5	10	302.2246	316.2402	359.2586	341.2481	285.2218	267.2113	301.2168	944.6894	944	643.4726	643
Heneicosanoic acid	Heneicosylic acid		21	0	21	326.3185	340.3341	383.3525	365.3420	309.3157	291.3052	325.3107	1016.9711	1016	691.6604	691
Docosanoic acid	Behenic acid	B	22	0	22	340.3341	354.3498	397.3682	379.3576	323.3314	305.3208	339.3263	1059.0180	1058	719.6917	719
c-13-Docosenoic acid	Erucic acid (n-9)	E	22	1	20	338.3185	352.3341	395.3525	377.3420	321.3157	303.3052	337.3107	1052.9711	1052	715.6604	715
c-13,16-Docosadienoic acid	Docosadienoic acid (ω-6)	C _{22:2}	22	2	18	336.3028	350.3185	393.3369	375.3263	319.3001	301.2895	335.2950	1046.9241	1046	711.6291	711
c-5,13,16-Docosatrienoic acid	Eranthic acid (ω-6)	C _{22:3}	22	3	16	334.2872	348.3028	391.3212	373.3107	317.2844	299.2739	333.2794	1040.8772	1040	707.5978	707
c-7,10,13,16-Docosatetraenoic acid	Adrenic acid (ω-6)	C _{22:4}	22	4	14	332.2715	346.2872	389.3056	371.2950	315.2688	297.2582	331.2637	1034.8302	1034	703.5665	703
c-7,10,13,16,19-Docosapentaenoic acid	DPA (ω-3)	Dp	22	5	12	330.2559	344.2715	387.2899	369.2794	313.2531	295.2426	329.2481	1028.7833	1028	699.5352	699
c-4,7,10,13,16,19-Docosahexaenoic acid	DHA (ω-3)	Dh	22	6	10	328.2402	342.2559	385.2743	367.2637	311.2375	293.2269	327.2324	1022.7363	1022	695.5039	695
Tricosanoic acid	Tricosylic acid	C _{23:0}	23	0	23	354.3498	368.3654	411.3838	393.3733	337.3470	319.3365	353.3420	1101.0650	1101	747.7230	747
Tetracosanoic acid	Lignoceric acid	Lg	24	0	24	368.3654	382.3811	425.3995	407.3889	351.3627	333.3521	367.3576	1143.1119	1143	775.7543	775
c-15-Tetracosenoic acid	Nervonic acid (n-9)	N	24	1	22	366.3498	380.3654	423.3838	405.3733	349.3470	331.3365	365.3420	1137.0650	1136	771.7230	771
c-15,18-Tetracosadienoic acid	Tetracosadienoic acid (ω-6)	C _{24:2}	24	2	20	364.3341	378.3498	421.3682	403.3576	347.3314	329.3208	363.3263	1131.0180	1130	767.6917	767
c-12,15,18-Tetracosatrienoic acid	Tetracosatrienylic acid	C _{24:3}	24	3	18	362.3185	376.3341	419.3525	401.3420	345.3157	327.3052	361.3107	1124.9711	1124	763.6604	763
c-9,12,15,18-Tetracosatetraenoic acid	Tetracosatetraenylic acid	C _{24:4}	24	4	16	360.3028	374.3185	417.3369	399.3263	343.3001	325.2895	359.2950	1118.9241	1118	759.6291	759
c-6,9,12,15,18-Tetracosapentaenoic acid (or 21)	Tetracosapentaenylic acid	C _{24:5}	24	5	14	358.2872	372.3028	415.3212	397.3107	341.2844	323.2739	357.2794	1112.8772	1112	755.5978	755
c-6,9,12,15,18,21-Tetracosahexaenoic acid	Tetracosahexaenylic acid (ω-3)	C _{24:6}	24	6	12	356.2715	370.2872	413.3056	395.2950	339.2688	321.2582	355.2637	1106.8302	1106	751.5665	751
Pentacosanoic acid	Hyenic acid	C _{25:0}	25	0	25	382.3811	396.3967	439.4151	421.4046	365.3783	347.3678	381.3733	1185.1589	1185	803.7856	803

Fatty Acids and Related Masses

For HRAM MS, Masses of ions now include loss or gain of a mole of electrons per mole of ions for = +/- 0.00054486 g/mol

Systematic Fatty Acid Name	Common Fatty Acid Name	Abbrev.	Fatty Acid Mass			Fatty Acid		[RCOO+58] ⁺	[RCOO+58-H ₂ O] ⁺	[RCO] ⁺	[RCO-H ₂ O] ⁺	[RCOO] ⁻	Pure	Pure	Pure	Pure	
			C	U	ECN	Methyl Ester	[RCO+74] ⁺						[RCO+74-H ₂ O] ⁺	Triglyceride	Triglyceride	Diglyceride	Diglyceride
Hexacosanoic acid	Cerotic acid	Ce	26	0	26	396.3967	410.4124	453.4308	435.4202	379.3940	361.3834	395.3889	1227.2058	1227	831.8169	831	
c-17-Hexacosenoic acid	Ximenic acid	Xi	26	1	24	394.3811	408.3967	451.4151	433.4046	377.3783	359.3678	393.3733	1221.1589	1221	827.7856	827	
Hexacosadienoic acid	Hexacosadienylic acid	C _{26:2}	26	2	22	392.3654	406.3811	449.3995	431.3889	375.3627	357.3521	391.3576	1215.1119	1215	823.7543	823	
Hexacosatrienoic acid	Hexacosatrienylic acid	C _{26:3}	26	3	20	390.3498	404.3654	447.3838	429.3733	373.3470	355.3365	389.3420	1209.0650	1208	819.7230	819	
Hexacosatetraenoic acid	Hexacosatetraenylic acid	C _{26:4}	26	4	18	388.3341	402.3498	445.3682	427.3576	371.3314	353.3208	387.3263	1203.0180	1202	815.6917	815	
Hexacosapentaenoic acid	Hexacosapentaenylic acid	C _{26:5}	26	5	16	386.3185	400.3341	443.3525	425.3420	369.3157	351.3052	385.3107	1196.9711	1196	811.6604	811	
Hexacosahexaenoic acid	Hexacosahexaenylic acid	C _{26:6}	26	6	14	384.3028	398.3185	441.3369	423.3263	367.3001	349.2895	383.2950	1190.9241	1190	807.6291	807	
Heptacosanoic acid	Carboceric acid	C _{27:0}	27	0	27	410.4124	424.4280	467.4464	449.4359	393.4096	375.3991	409.4046	1269.2528	1269	859.8482	859	
Octacosanoic acid	Montanic acid	Mo	28	0	28	424.4280	438.4437	481.4621	463.4515	407.4253	389.4147	423.4202	1311.2997	1311	887.8795	887	
Octacosenoic acid	Octacosenylic acid	C _{28:1}	28	1	26	422.4124	436.4280	479.4464	461.4359	405.4096	387.3991	421.4046	1305.2528	1305	883.8482	883	
Octacosadienoic acid	--	C _{28:2}	28	2	24	420.3967	434.4124	477.4308	459.4202	403.3940	385.3834	419.3889	1299.2058	1299	879.8169	879	
Nonacosanoic acid	Nonacosylic acid	C _{29:0}	29	0	29	438.4437	452.4593	495.4777	477.4672	421.4409	403.4304	437.4359	1353.3467	1353	915.9108	915	
Triacontanoic acid	Melissic acid	C _{30:0}	30	0	30	452.4593	466.4750	509.4934	491.4828	435.4566	417.4460	451.4515	1395.3936	1395	943.9421	943	
c-21-Triacontenoic acid	Lumequeic acid	C _{30:1}	30	1	28	450.4437	464.4593	507.4777	489.4672	433.4409	415.4304	449.4359	1389.3467	1389	939.9108	939	
		C _{30:2}	30	2	26	448.4280	462.4437	505.4621	487.4515	431.4253	413.4147	447.4202	1383.2997	1383	935.8795	935	
Henatriacontanoic acid	Henatriacontylyc acid	C _{31:0}	31	0	31	466.4750	480.4906	523.5090	505.4985	449.4722	431.4617	465.4672	1437.4406	1437	971.9734	971	
Dotriacontanoic acid	Lacceroic acid	C _{32:0}	32	0	32	480.4906	494.5063	537.5247	519.5141	463.4879	445.4773	479.4828	1479.4875	1479	1000.0047	1000	
Dotriacontenoic acid	Dotriacontenylyc acid	C _{32:1}	32	1	30	478.4750	492.4906	535.5090	517.4985	461.4722	443.4617	477.4672	1473.4406	1473	995.9734	995	
Dotriacontadienoic acid	--	C _{32:2}	32	2	28	476.4593	490.4750	533.4934	515.4828	459.4566	441.4460	475.4515	1467.3936	1467	991.9421	991	
Triatriacontanoic acid	Psyllic acid	C _{33:0}	33	0	33	494.5063	508.5219	551.5403	533.5298	477.5035	459.4930	493.4985	1521.5345	1521	1028.0360	1028	
Tetraatriacontanoic acid	Gheddic acid	C _{34:0}	34	0	34	508.5219	522.5376	565.5560	547.5454	491.5192	473.5086	507.5141	1563.5814	1563	1056.0673	1056	
Tetraatriacontenoic acid	Tetraatriacontenylyc acid	C _{34:1}	34	1	32	506.5063	520.5219	563.5403	545.5298	489.5035	471.4930	505.4985	1557.5345	1557	1052.0360	1052	
Tetraatriacontadienoic acid	--	C _{34:2}	34	2	30	504.4906	518.5063	561.5247	543.5141	487.4879	469.4773	503.4828	1551.4875	1551	1048.0047	1047	
Pentatriacontanoic acid	Ceroplactic acid	C _{35:0}	35	0	35	522.5376	536.5532	579.5716	561.5611	505.5348	487.5243	521.5298	1605.6284	1605	1084.0986	1084	
Hexatriacontanoic acid	Hexatriacontylyc acid	C _{36:0}	36	0	36	536.5532	550.5689	593.5873	575.5767	519.5505	501.5399	535.5454	1647.6753	1647	1112.1299	1112	
Hexatriacontenoic acid	Hexatriacontenylyc acid	C _{36:1}	36	1	34	534.5376	548.5532	591.5716	573.5611	517.5348	499.5243	533.5298	1641.6284	1641	1108.0986	1108	
Hexatriacontadienoic acid	--	C _{36:2}	36	2	32	532.5219	546.5376	589.5560	571.5454	515.5192	497.5086	531.5141	1635.5814	1635	1104.0673	1104	