

Table 1A. Amino Acids With Apolar Side Chains

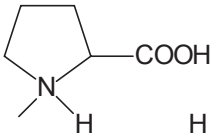
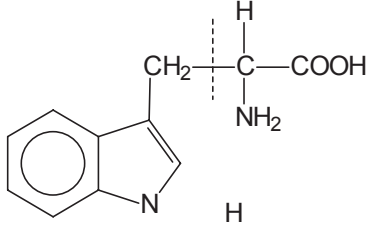
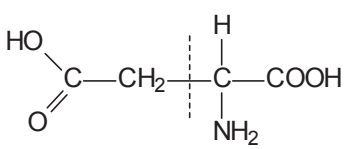
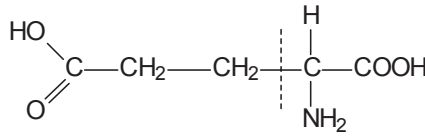
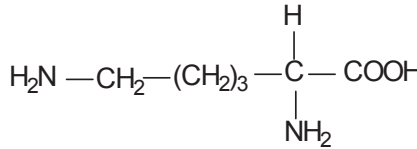
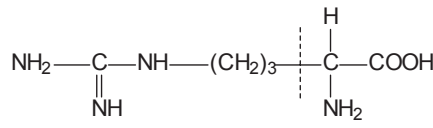
1	2	3	3	3	4	5	6
Name And Res Comp	Abb	Res Nom	Residue Monoiso	Residue Average	Immo Mass	SC Mass	Structure
Glycine C ₂ H ₃ NO	Gly G	57	57.02146	57.0520	30	–	$\begin{array}{c} \text{H} \\ \\ \text{H}-\text{C}-\text{COOH} \\ \\ \text{NH}_2 \end{array}$
Alanine C ₃ H ₅ NO	Ala A	71	71.03711	71.0788	44	15	$\begin{array}{c} \text{H} \\ \\ \text{CH}_3-\text{C}-\text{COOH} \\ \\ \text{NH}_2 \end{array}$
Valine C ₅ H ₉ NO	Val V	99	99.06841	99.1326	72	43	$\begin{array}{c} \text{H} \\ \\ \text{CH}_3 \quad \text{CH}-\text{C}-\text{COOH} \\ \diagdown \quad \quad \\ \text{CH}_3 \quad \quad \text{NH}_2 \end{array}$
Leucine C ₆ H ₁₁ NO	Leu L	113	113.08406	113.1595	86	57	$\begin{array}{c} \text{H} \\ \\ \text{CH}_3 \quad \text{CH}-\text{CH}_2-\text{C}-\text{COOH} \\ \diagdown \quad \quad \\ \text{CH}_3 \quad \quad \text{NH}_2 \end{array}$
Isoleucine C ₆ H ₁₁ NO	Ile I	113	113.08406	111.1595	86	57	$\begin{array}{c} \text{H} \\ \\ \text{CH}_3-\text{CH}_2-\text{CH}-\text{C}-\text{COOH} \\ \quad \quad \quad \\ \quad \quad \text{CH}_3 \quad \text{NH}_2 \end{array}$
Proline C ₅ H ₇ NO	Pro P	97	97.05276	97.1167	70	–	
Phenylalanine C ₉ H ₉ NO	Phe F	147	147.06841	147.1766	120	91	$\begin{array}{c} \text{H} \\ \\ \text{C}_6\text{H}_5-\text{CH}_2-\text{C}-\text{COOH} \\ \\ \text{NH}_2 \end{array}$
Tryptophan C ₁₁ H ₁₀ N ₂ O	Trp W	186	186.07931	186.2133	159	130	
Methionine C ₅ H ₉ NOS	Met M	131	131.04049	131.1986	104	75	$\begin{array}{c} \text{H} \\ \\ \text{CH}_3-\text{S}-\text{CH}_2-\text{CH}_2-\text{C}-\text{COOH} \\ \\ \text{NH}_2 \end{array}$

Table 1B. Amino Acids With Uncharged Polar Side Chains

1	2	3	3	3	4	5	6
Name And Res Comp	Abb	Res Nom	Residue Monoiso	Residue Average	Immo Mass	SC Mass	Structure
Serine C ₃ H ₅ NO ₂	Ser S	87	87.03203	87.0782	60	31	$\text{HO}-\text{CH}_2-\text{C}(\text{H})(\text{NH}_2)-\text{COOH}$
Threonine C ₄ H ₇ NO ₂	Thr T	101	101.04768	101.1051	74	45	$\text{CH}_3-\text{C}(\text{OH})(\text{H})-\text{C}(\text{H})(\text{NH}_2)-\text{COOH}$
Cysteine C ₃ H ₅ NOS	Cys C	103	103.00919	103.1448	76	47	$\text{HS}-\text{CH}_2-\text{C}(\text{H})(\text{NH}_2)-\text{COOH}$
Tyrosine C ₉ H ₉ NO ₂	Tyr Y	163	163.06333	163.1760	136	107	$\text{HO}-\text{C}_6\text{H}_4-\text{CH}_2-\text{C}(\text{H})(\text{NH}_2)-\text{COOH}$
Asparagine C ₄ H ₆ N ₂ O ₂	Asn N	114	114.04293	114.1039	87	58	$\text{NH}_2-\text{C}(=\text{O})-\text{CH}_2-\text{C}(\text{H})(\text{NH}_2)-\text{COOH}$
Glutamine C ₅ H ₈ N ₂ O ₂	Gln Q	128	128.05856	128.1308	101	72	$\text{NH}_2-\text{C}(=\text{O})-\text{CH}_2-\text{CH}_2-\text{C}(\text{H})(\text{NH}_2)-\text{COOH}$

Table 1C. Amino Acids With Charged Polar Side Chains

1	2	3	3	3	4	5	6
Name And Res Comp	Abb	Res Nom	Residue Monoiso	Residue Average	Immo Mass	SC Mass	Structure
Aspartic acid C ₄ H ₅ NO ₃	Asp D	115	115.02694	115.0886	88	59	
Glutamic acid C ₅ H ₇ NO ₃	Glu E	129	129.04259	129.1155	102	73	
Lysine C ₆ H ₁₂ N ₂ O	Lys K	128	128.09496	128.1742	101	72	
Arginine C ₆ H ₁₂ N ₄ O	Arg R	156	156.10111	156.1876	129	100	
Histidine C ₆ H ₇ N ₃ O	His H	137	137.05891	137.1412	110	81	