

**pKa and pI values of amino acids**

Amino acid	3-letter code	1-letter code	pKa C <sub>α</sub> -COOH	pKa C <sub>α</sub> -NH <sub>3</sub> <sup>+</sup>	pKa side chain	Isoelectric point (pI)
<b>Alanine</b>	Ala	A	2.34	9.69	-	6.02
<b>Arginine</b>	Arg	R	2.17	9.04	12.48	10.76
<b>Asparagine</b>	Asn	N	2.02	8.80	-	5.41
<b>Aspartic acid</b>	Asp	D	2.09	9.82	3.86	2.98
<b>Cysteine</b>	Cys	C	1.71	10.78	8.33	5.02
<b>Glutamic acid</b>	Glu	E	2.19	9.67	4.25	3.22
<b>Glutamine</b>	Gln	Q	2.17	9.13	-	5.65
<b>Glycine</b>	Gly	G	2.34	9.60	-	5.97
<b>Histidine</b>	His	H	1.82	9.17	6.00	7.59
<b>Isoleucine</b>	Ile	I	2.36	9.60	-	5.98
<b>Leucine</b>	Leu	L	2.36	9.60	-	5.98
<b>Lysine</b>	Lys	K	2.18	8.95	10.79	9.87
<b>Methionine</b>	Met	M	2.28	9.21	-	5.75
<b>Phenylalanine</b>	Phe	F	1.83	9.13	-	5.48
<b>Proline</b>	Pro	P	1.99	10.60	-	6.30
<b>Serine</b>	Ser	S	2.21	9.15	-	5.68
<b>Threonine</b>	Thr	T	2.09	9.10	-	5.60
<b>Tryptophan</b>	Trp	W	2.43	9.44	-	5.94
<b>Tyrosine</b>	Tyr	Y	2.20	9.11	10.07	5.66
<b>Valine</b>	Val	V	2.32	9.62	-	5.97

[www.peptideweb.com](http://www.peptideweb.com)

Custom peptide synthesis | Equipment, glassware and reagents for peptide synthesis