

Molecular Weights of AA with and without Protecting Groups

1-Letter	Amino Acid	3-Letter	Mol. wt. WITH PG(s) (g/mol)	Mol. wt. WITHOUT PG(s) (g/mol)	Standard PG(s)
A	Alanine	Ala	311.33	89.09	Fmoc-Ala-OH
C	Cysteine	Cys	585.71	121.16	Fmoc-Cys(Trt)-OH
D	Aspartic acid	Asp	411.45	133.1	Fmoc-Asp(OtBu)-OH
E	Glutamic acid	Glu	425.47	147.13	Fmoc-Glu(OtBu)-OH
F	Phenylalanine	Phe	387.43	165.19	Fmoc-Phe-OH
G	Glycine	Gly	297.31	75.07	Fmoc-Gly-OH
H	Histidine	His	619.71	155.15	Fmoc-His(Trt)-OH
I	Isoleucine	Ile	353.41	131.17	Fmoc-Ile-OH
K	Lysine	Lys	468.54	146.19	Fmoc-Lys(Boc)-OH
L	Leucine	Leu	353.41	131.17	Fmoc-Leu-OH
M	Methionine	Met	371.45	149.21	Fmoc-Met-OH
N	Asparagine	Asn	596.67	132.12	Fmoc-Asn(Trt)-OH
P	Proline	Pro	337.37	115.13	Fmoc-Pro-OH
Q	Glutamine	Gln	610.7	146.14	Fmoc-Gln(Trt)-OH
R	Arginine	Arg	648.77	174.2	Fmoc-Arg(Pbf)-OH
S	Serine	Ser	383.44	105.09	Fmoc-Ser(tBu)-OH
T	Threonine	Thr	397.46	119.12	Fmoc-Thr(tBu)-OH
V	Valine	Val	339.39	117.15	Fmoc-Val-OH
W	Tryptophan	Trp	526.58	204.23	Fmoc-Trp(Boc)-OH
Y	Tyrosine	Tyr	459.53	181.19	Fmoc-Tyr(tBu)-OH