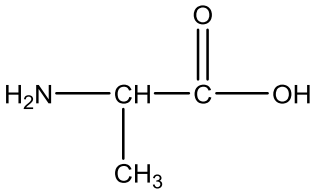
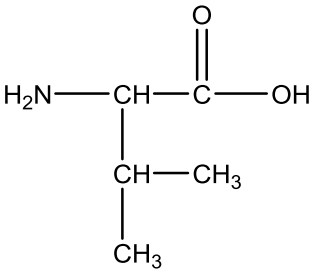
The 20 standard amino acids

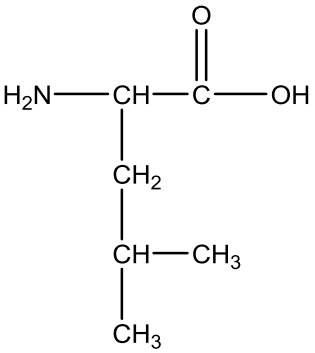
Aliphatic side chains (non-aromatic hydrocarbons)



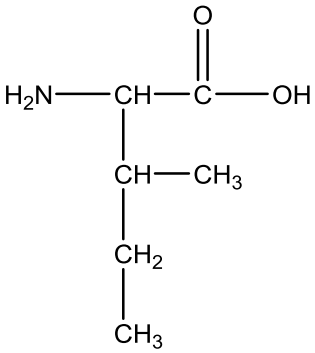
Alanine – Ala – A



Valine – Val – V

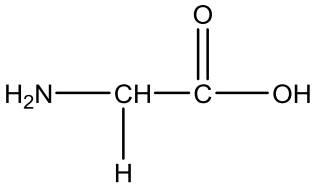


Leucine – Leu – L

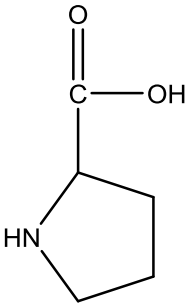


Isoleucine – Ile – I

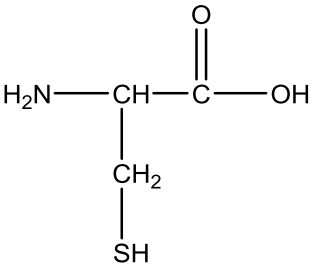
Non-polar side chains



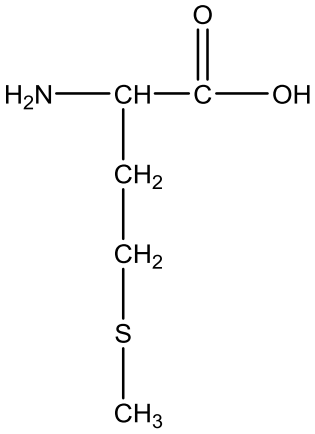
Glycine – Gly – G



Proline – Pro – P

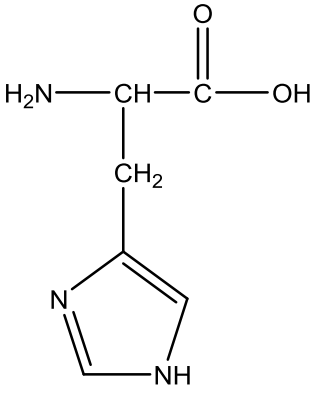


Cysteine – Cys – C

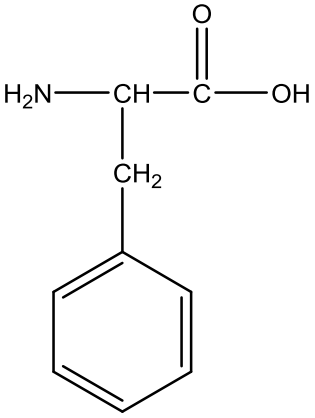


Methionine – Met – M

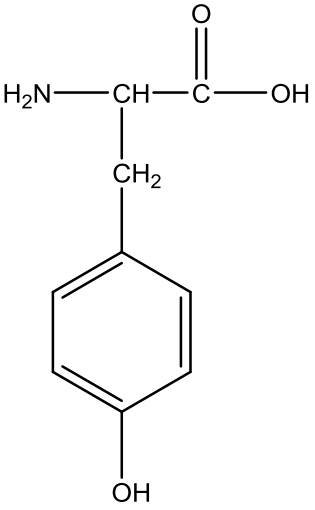
Aromatic side chains



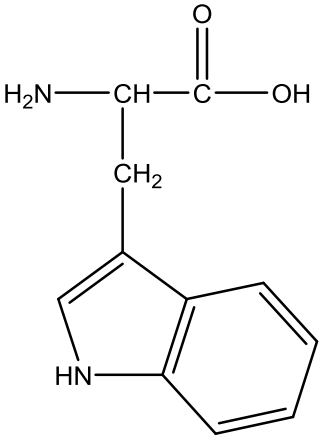
Histidine – His – H



Phenylalanine – Phe – F

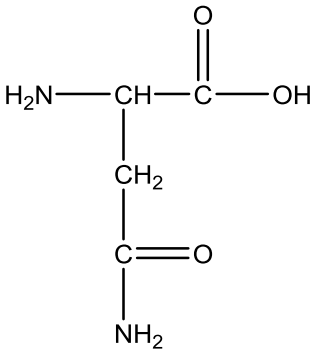


Tyrosine – Tyr – Y

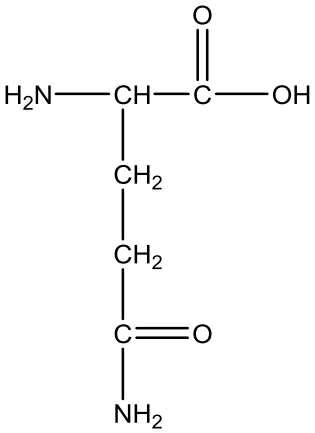


Tryptophan – Trp – W

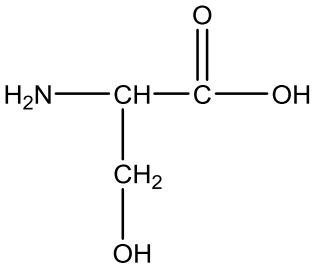
Polar side chains



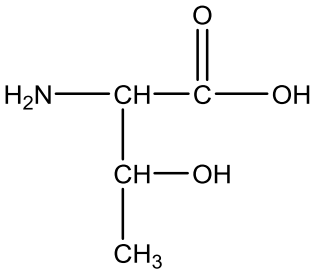
Asparagine – Asn – N



Glutamine – Gln – Q

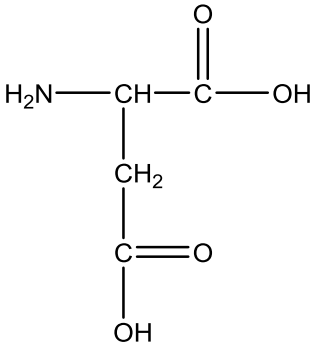


Serine – Ser – S

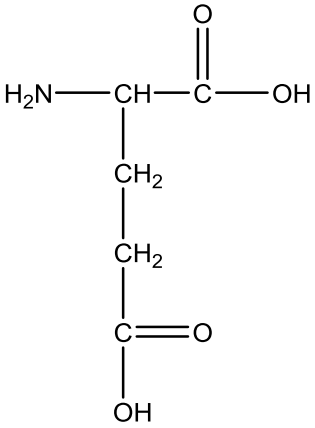


Threonine – Thr – T

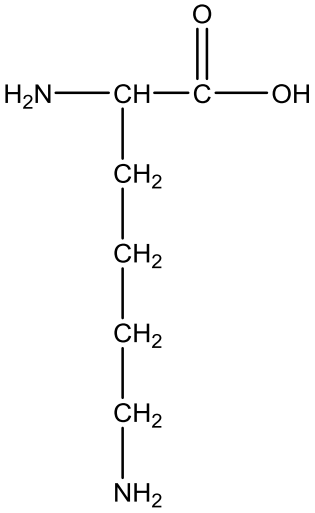
Charged side chains



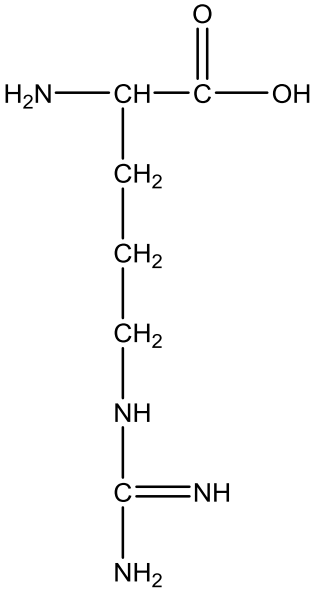
Aspartic acid – Asp – D



Glutamic acid – Glu – E



Lysine – Lys – K



Arginine – Arg – R