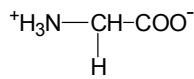
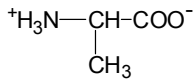


The 20 biological amino acids

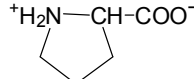
Aliphatic nonpolar side chains:



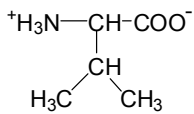
Glycine
Gly
G



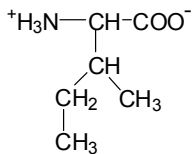
Alanine
Ala
A



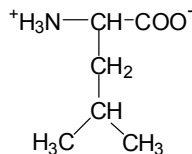
Proline
Pro
P



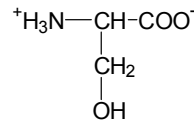
Valine
Val
V



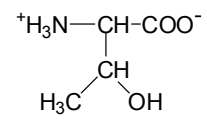
Isoleucine
Ile
I



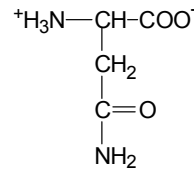
Leucine
Leu
L



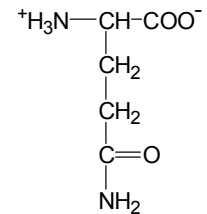
Serine
Ser
S



Threonine
Thr
T

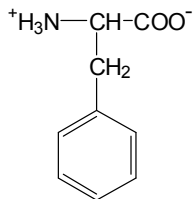


Asparagine
Asn
N

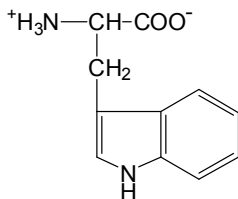


Glutamine
Gln
Q

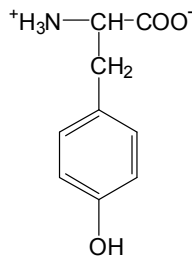
Aromatic side chains:



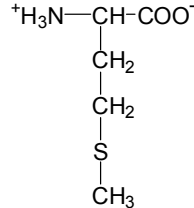
Phenylalanine
Phe
F



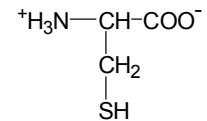
Tryptophan
Trp
W



Tyrosine
Tyr
Y

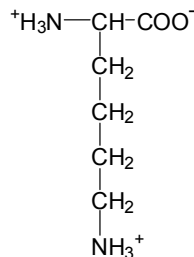


Methionine
Met
M

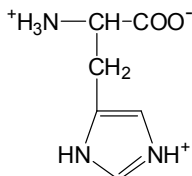


Cysteine
Cys
C

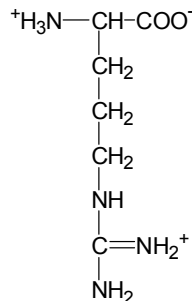
Basic side chains:



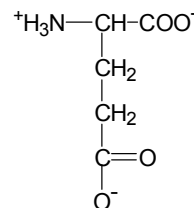
Lysine
Lys
K



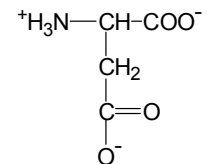
Histidine
His
H



Arginine
Arg
R



Glutamic acid
Glu
E



Aspartic acid
Asp
D

Aliphatic polar side chains:

Sulfur containing side chains:

Acidic side chains: