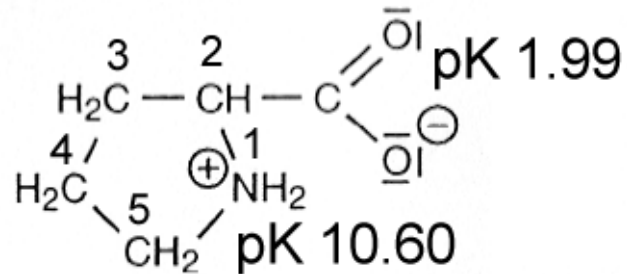
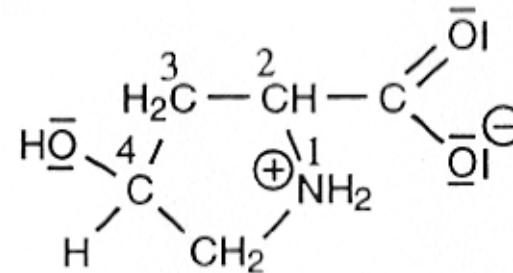


## Heterocyclische Aminosäuren (Zwitterion bei pH = 7.3)

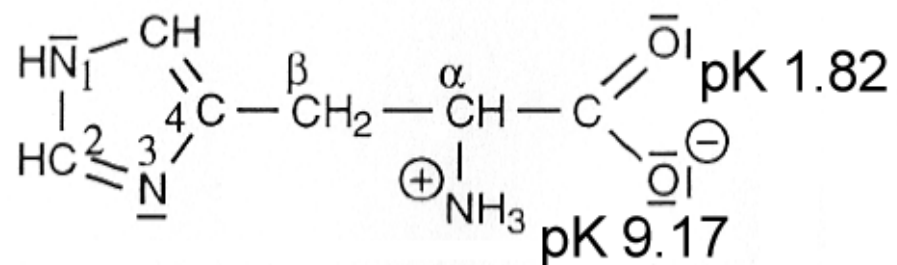


### Prolin (Pro)

Pyrrolidin-2-carbonsäure



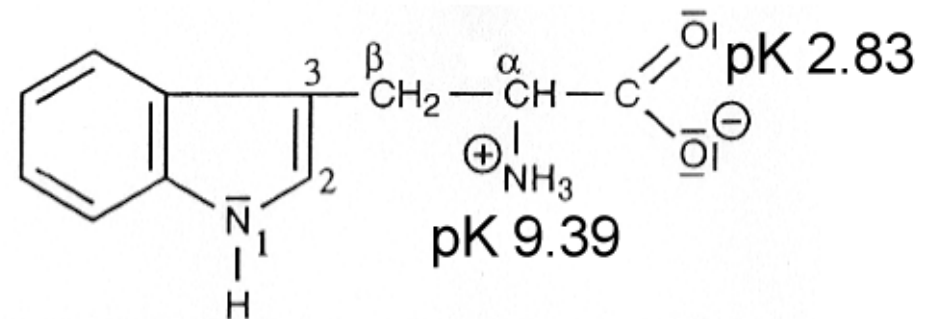
### 4-Hydroxyprolin (Hyp)



### Histidin (His)

$\beta$ -(4-Imidazolyl)-alanin

Essentiell für Kinder.



### Tryptophan (Trp)

$\beta$ -(3-Indolyl)-alanin

Essentiell.