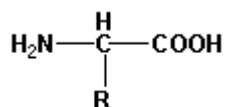


Aminosyrer

Andre navne: (Eng.: Amino acids)

Aminosyrer er organiske forbindelser der er karakteriseret ved at indeholde både en [aminogruppe](#) og en [carboxylsyregruppe](#).

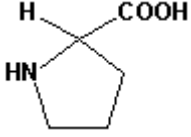
Generel struktur af en aminosyre, hvor **R**-gruppen kan være forskellige sidegrupper:



Alle naturligt forekommende aminosyrer fundet i [proteiner](#) og hører til den L-stereokemiske serie. De essentielle aminosyrer er: [Valin](#), [leucin](#), [isoleucin](#), [phenylalanin](#), [methionin](#), [tryptophan](#), [threonin](#), [lysin](#), [arginin](#) samt [histidin](#). Tabellen viser de aminosyrer der normalt forekommer i proteiner (se dog [3-methylhistidin](#)). Andre aminosyrer forekommer ikke i proteiner som fx. [ornithin](#), [2-amino-2-carboxyethylxamidsyre](#) og [GABA](#).

Udover de almindelige navne anvendes ofte forkortelser for de forskellige aminosyrer fx forkortes alanin som ala eller som A.

Alanin , ala, A $\begin{array}{c} \text{H} \\ \\ \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_3 \end{array}$	Glycin , gly, G $\begin{array}{c} \text{H} \\ \\ \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{H} \end{array}$	Asparaginsyre , aspartat, asp, $\begin{array}{c} \text{H} \\ \\ \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2 \\ \\ \text{C} \\ // \quad \backslash \\ \text{O} \quad \text{OH} \end{array}$
Valin , val, V $\begin{array}{c} \text{H} \\ \\ \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH} \\ / \quad \backslash \\ \text{H}_3\text{C} \quad \text{CH}_3 \end{array}$	Serin , ser, S $\begin{array}{c} \text{H} \\ \\ \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2 \\ \\ \text{OH} \end{array}$	Glutaminsyre , glutamat, glu, E $\begin{array}{c} \text{H} \\ \\ \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2 \\ \\ \text{CH}_2 \\ \\ \text{C} \\ // \quad \backslash \\ \text{O} \quad \text{OH} \end{array}$
Leucin , leu, L $\begin{array}{c} \text{H} \\ \\ \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2 \\ \\ \text{CH} \\ / \quad \backslash \\ \text{H}_3\text{C} \quad \text{CH}_3 \end{array}$	Threonin , thr, T $\begin{array}{c} \text{H} \\ \\ \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{HC}-\text{CH}_3 \\ \\ \text{OH} \end{array}$	Lysin , lys, K $\begin{array}{c} \text{H} \\ \\ \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2 \\ \\ \text{CH}_2 \\ \\ \text{CH}_2 \\ \\ \text{CH}_2 \\ \\ \text{NH}_2 \end{array}$

Isoleucin, ile, I $ \begin{array}{c} \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH} \\ / \quad \backslash \\ \text{H}_2\text{C} \quad \text{CH}_3 \\ \\ \text{CH}_3 \end{array} $	Cystein, cys, C $ \begin{array}{c} \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2 \\ \\ \text{SH} \end{array} $	Arginin, arg, R $ \begin{array}{c} \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2 \\ \\ \text{CH}_2 \\ \\ \text{CH}_2 \\ \\ \text{NH} \\ \\ \text{C}=\text{NH} \\ / \quad \backslash \\ \text{H}_2\text{N} \quad \text{NH} \end{array} $
Prolin, pro, P 	Tyrosin, tyr, Y $ \begin{array}{c} \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2 \\ \\ \text{C}_6\text{H}_4 \\ \\ \text{OH} \end{array} $	Histidin, his, H $ \begin{array}{c} \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2 \\ \\ \text{C}_4\text{H}_3\text{N}_2^+ \end{array} $
Phenylalanin, phe, F $ \begin{array}{c} \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2 \\ \\ \text{C}_6\text{H}_5 \end{array} $	Asparagin, asn, N $ \begin{array}{c} \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2 \\ \\ \text{C}=\text{O} \\ \\ \text{NH}_2 \end{array} $	
Methionin, met, M $ \begin{array}{c} \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2 \\ \\ \text{CH}_2 \\ \\ \text{S} \\ \\ \text{CH}_3 \end{array} $	Glutamin, gln, Q $ \begin{array}{c} \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2 \\ \\ \text{CH}_2 \\ \\ \text{C}=\text{O} \\ \\ \text{NH}_2 \end{array} $	
Tryptophan, trp, W $ \begin{array}{c} \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{H}_2\text{C} \\ \\ \text{C}_8\text{H}_6\text{N} \end{array} $		