



AMINO ACIDS 2

Amino acid	Reaction with NaOH	Reaction with hydrochloric acid	Reaction with methanol in the presence of a small amount of conc H ₂ SO ₄	Reaction with ethanoyl chloride
$\begin{array}{c} \text{H} \\ \\ \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}-\text{CH}_3 \\ \\ \text{CH}_3 \end{array}$ <p><i>valine</i></p>				
$\begin{array}{c} \text{H} \\ \\ \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2\text{COOH} \end{array}$ <p><i>aspartic acid</i></p>				
$\begin{array}{c} \text{H} \\ \\ \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2\text{OH} \end{array}$ <p><i>serine</i></p>				

Amino acid	Reaction with alanine $\begin{array}{c} \text{H} \\ \\ \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_3 \end{array}$	
	Product 1	Product 2
$\begin{array}{c} \text{H} \\ \\ \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}-\text{CH}_3 \\ \\ \text{CH}_3 \end{array}$ <i>valine</i>		
$\begin{array}{c} \text{H} \\ \\ \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2\text{COOH} \end{array}$ <i>aspartic acid</i>		
$\begin{array}{c} \text{H} \\ \\ \text{H}_2\text{N}-\text{C}-\text{COOH} \\ \\ \text{CH}_2\text{OH} \end{array}$ <i>serine</i>		