

## Native Jack bean Urease

### Product Information

<b>Cat#</b>	PHAM-180
<b>Abbr</b>	Urease (Jack bean)
<b>Alias</b>	Urease
<b>Similar</b>	Urease
<b>Source</b>	Jack bean
<b>Description</b>	Ureases (EC 3.5.1.5), functionally, belong to the superfamily of amidohydrolases and phosphotriesterases. It is an enzyme that catalyzes the hydrolysis of urea into carbon dioxide and ammonia. The reaction occurs as follows: $(\text{NH}_2)_2\text{CO} + \text{H}_2\text{O} \rightarrow \text{CO}_2 + 2\text{NH}_3$ .
<b>Applications</b>	This enzyme is useful for enzymatic determination of urea in clinical analysis.
<b>Appearance</b>	White amorphous powder, lyophilized
<b>Form</b>	Freeze dried powder
<b>Enzyme Commission Number</b>	EC 3.5.1.5
<b>Activity</b>	100U/mg-solid or more
<b>CAS No.</b>	9002-13-5
<b>Contaminants</b>	Asparaginase < $2.0 \times 10^{-2}\%$ Arginase < $2.0 \times 10^{-3}\%$ $\text{NH}_4^+$ < $5.0 \times 10^{-4}\mu\text{g/U}$
<b>Isoelectric point</b>	5.0-5.1
<b>pH Stability</b>	pH 5.5-8.5 (30°C, 17hr)
<b>Michaelis Constant</b>	$1.05 \times 10^{-2}\text{M}$ (Urea)
<b>Structure</b>	8 active sites with SH-groups per mole of the enzyme
<b>Optimum pH</b>	6
<b>Optimum</b>	60°C



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### temperature

<b>Thermal stability</b>	below 50°C (pH 8.0, 60min)
<b>Stability</b>	Store at -20°C (A decrease in activity of ca.15% may occur within 6 months)
<b>Stabilizers</b>	EDTA, glutathione, succinate, BSA
<b>Inhibitors</b>	Heavy metal ions (Ag <sup>+</sup> ,Hg <sup>++</sup> ,etc.)
<b>Synonyms</b>	EC 3.5.1.5; Urease