Creative Enzymes
Diagnostic Enzymes

Native Jack bean Urease

Product Information

Cat#	PHAM-180
Abbr	Urease (Jack bean)
Alias	Urease
Similar	Urease
Source	Jack bean
Description	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: (NH2)2CO + H2O → CO2 + 2NH3.
Applications	This enzyme is useful for enzymatic determination of urea in clinical analysis.
Appearance	White amorphous powder, lyophilized
Form	Freeze dried powder
Enzyme Commission Number	EC 3.5.1.5
Activity	100U/mg-solid or more
CAS No.	9002-13-5
Contaminants	Asparaginase < 2.0×10^{-2}% Arginase < 2.0×10^{-3}% NH_4^+ < 5.0×10^{-4}μg/U
Isoelectric point	5.0-5.1
pH Stability	pH 5.5-8.5 (30°C, 17hr)
Michaelis Constant	1.05×10^{-2}M (Urea)
Structure	8 active sites with SH-groups per mole of the enzyme
Optimum pH	6
Optimum	60°C

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

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