

ENZYMES

BY

SORACHIM

Urease from Jack bean

URH-16C

SPECIFICATIONS

| | |
|--------------------|---|
| Name | Urea amidohydrolase |
| EC | 3.5.1.5 |
| Appearance | white amorphous powder, lyophilized |
| Activity | 150 U/mg-solid or more |
| Contaminants | $\text{NH}_4^+ \leq 2.0 \times 10^{-4} \mu\text{mol/U}$ |
| Stability | Stable at -20°C for at least 12 months |
| Molecular weight | Approx. 480,000 |
| Isoelectric point | 5.0 - 5.1 |
| Michaelis constant | $1.05 \times 10^{-2} \text{ M (Urea)}$ |
| Structure | 8 active sites with SH-groups per mole of the enzyme |
| Inhibitors | Heavy metal ions (Ag^+ , Hg^{2+} , etc.) |

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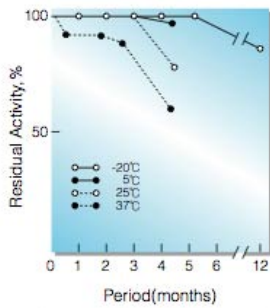


Fig.1. Stability (Powder form, Grade III)
(kept under dry conditions)

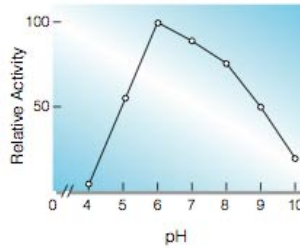


Fig.3. pH-Activity
(30°C in 10mM buffer solution: pH3.0-9.0)
Veronal-CH₂COONa-HCl; pH9.0-11.0,
glycine-NaOH.

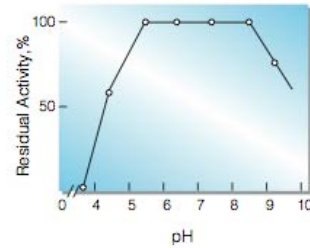


Fig.5. pH-Stability
(30°C, 17hr-treatment with 10mM buffer
solution: pH 3.0-9.0, Veronal-CH₂COONa-HCl;
[pH9.0-11.0: glycine-NaOH

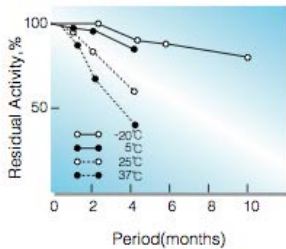


Fig.2. Stability (Powder form, Grade II)
(kept under dry conditions)

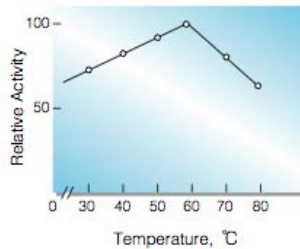


Fig.4. Temperature activity
(in 20mM phosphate buffer, pH7.0)

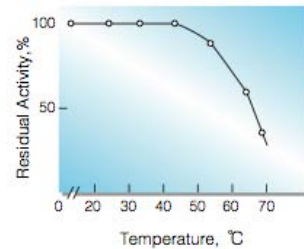


Fig.6. Thermal stability
(60min-treatment with 20mM phosphate
buffer, pH8.0.

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