Subtilisin, bacillus licheniformis

Cat. No.:	HY-E70076
CAS No.:	9014-01-1
Target:	Biochemical Assay Reagents
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

Subtilisin, bacillus licheniformis

SOLVENT & SOLUBILITY

In Vitro	DMSO : 20 mg/mL (ultrasonic and warming and heat to 60°C)

BIOLOGICAL ACTIVITY

Description	Subtilisin (Compound proteinase) (EC 3.4.21.62) is a proteolytic enzyme, isolated from Bacillus licheniformis. Subtilisin (Compound proteinase) has catalytic activity in anhydrous dimethyl formamide. Subtilisin (Compound proteinase) can be used as a catalyst for easy coupling between sugars and amino acids[1][2].
In Vitro	Subtilisin (Compound proteinase) (30 mg/mL; 2.5-7 d) selectively acylates disaccharides in anhydrous dimethylformamide[1]. Subtilisin (Compound proteinase) (1.8 g; 20-72 h) selectively acylates monosaccharides in anhydrous dimethylformamide[1]. Subtilisin (Compound proteinase) proteinase acylates D-glucose of flavanol isoquercetin (1) in the presence of activated ester trifluoroethyl butyrate (TFEB)[3]. Subtilisin (Compound proteinase) improves the solubility of protein and fatty acids, and restores polypeptides and unsaturated fatty acids[4]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Subtilisin (Compound proteinase) hydrolysate (the ≤1 kDa meretrix lusoria protamex hydrolysate, MLPH) (150 mg/kg and 300 mg/kg; p.o.; once daily for 6 weeks) has anti-obesity and anti-hyperglycemic effects on ob/ob mice[4]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Riva S, et al. Protease-catalyzed regioselective esterification of sugars and related compounds in anhydrous dimethylformamide[J]. Journal of the American Chemical Society, 1988, 110(2): 584-589.

[2]. Philipp M, et al. Inhibition of subtilisin by substituted arylboronic acids. FEBS Lett. 1981 Oct 12;133(1):36-8.

[3]. Danieli B, et al. On the regioselectivity of the protease subtilisin towards the acylation of enantiomeric pairs of benzyl and naphthyl glycopyranosides. Part 2[J]. Tetrahedron, 1999, 55(7): 2045-2060.

[4]. Kim MJ, et al. Anti-Obesity and Anti-Hyperglycemic Effects of Meretrix lusoria Protamex Hydrolysate in ob/ob Mice. Int J Mol Sci. 2022 Apr 5;23(7):4015.

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