Specification

Protease from *Streptomyces griseus* A3459

Solubility:	soluble (H_2O)
Product Code:	A3459
Product Name:	Protease from *Streptomyces griseus*
Specifications:	Activity: >4000 U/mg (Casein, pH 7.4, 40°C) Appearance (powder): light brown, fine
Hazard pictograms	
WGK:	1
Storage:	2-8°C
Signal Word:	Danger
GHS Symbols:	GHS07 GHS08
H Phrases:	H315 H319 H334 H335
P Phrases:	P260 P302+P352 P304+P341 P305+P351+P338 P342+P311
CAS:	9036-06-0
EINECS:	232-909-5

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Specification

Protease from *Streptomyces griseus* A3459

CS:	35079090
Index Nr.:	612-029-00-1

Comment

This protease is a mixture of endo- and exo proteinases isolated from *Streptomyces griseus* (1). Proteins are digested to single amino acids. It is applied in the *in situ* hybridization with cellular RNA (ref. 2 Suppl. 7\+17 Page 14.3.2-9), in the isolation of DNA and RNA, in the tissue dissociation (1) or in the purification of glycopeptides from purified glycoproteins (ref. 2 Suppl. 23 pp. 17.14.3-7). The pH optimum is between 6 and 8. The protease from *Streptomyces griseus* requires calcium ions and is active even in the presence of 1 % SDS or 1 % Triton® X-100. Some components are stable against urea and guanidinium salts, but a complete digest of the substrate is not possible anymore. There are different protocols for dissolving and treating this protease. The protease from *Streptomyces griseus* can be dissolved at a concentration of 0.25 % in PBS and filter-sterilized (1) or at 20 mg/ml in water (ref. 3 page A4.50) or at 10 mg/ml in 100 mM Tris · HCl (pH 7.5), 10 mM $CaCl_2$ (ref. 2 page 17.14.6; stable for 2 days at \+4°C). For application, which require the destruction of DNases and RNases, a pretreatment is recommended ('self-digestion')\: 20 mg/ml protease are dissolved in 10 mM Tris · HCl (pH 7.5), 10 mM NaCl and incubated for 1 h at 37°C. Store in small aliquots at -20°C. The working concentration is 1 mg/ml and the reaction temperature at 37°C.

Bibliography

(1)Gwatkin, R.B.L. (1973) "Pronase" in *Tissue culture\: Methods and Applications* (Kruse & Patterson eds.) Academic Press, New York & London. (2)Ausubel, F.A., Brent, R., Kingston, R.E., Moore, D.D., Seidman, J.G., Smith, J.A. & Struhl, K. (eds.) 2001. *Currrent Protocols in Molecular Biology*. John Wiley & Sons, New York. (3)Sambrook, J. & Russell, D.W. (2001) *Molecular Cloning\:* A Laboratory Manual, 3rd Edition. Page A4.50. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY.

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