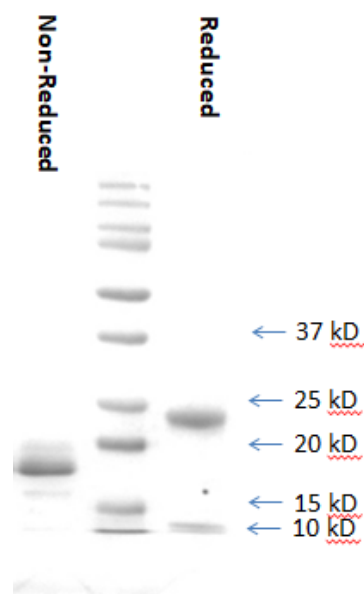


重组牛源胰蛋白酶

产品简介：胰蛋白酶(EC 3.4.21.4)是一种丝氨酸蛋白酶，存在于许多脊椎动物的消化系统中，作为消化酶而起作用。在胰脏中它作为酶的前体，没有活性的胰蛋白酶原被合成。它能切割赖氨酸或精氨酸残基中的羧基端肽链（羧基端如果是脯氨酸除外），在大量生物技术过程中被广泛使用，这些过程被称为“胰蛋白酶水解”或“胰蛋白酶化”。另外，经胰蛋白酶水解过或处理过的蛋白被称为经胰蛋白酶化过的蛋白。在细胞培养过程中，胰蛋白酶是贴壁细胞消化的关键试剂。

产品指标：

1. 来源：重组大肠杆菌
2. 形状：白色冻干粉
3. 内毒素：<0.5EU/mg
4. 纯度：≥90%，分子量：23KDa 左右



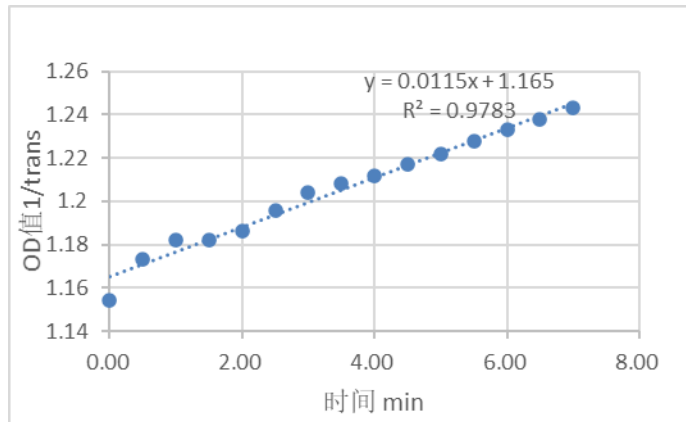
SDS-PAGE: 5µg Sample Note: bTrypsin includes different forms

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5. 酶活：212U/mg protein, 活力单位：30°C, pH8.1, 反应体系 3.0ml (1cm 光路), 每分钟酶解 TAME 使 253nm 下的吸收值增加 0.001 定义为一个 U 单位。



Specific activity is about 212 U/mg.

1 U trypsin activity means the change of $0.001\Delta D_{253nm}/\text{min}$ at 30°C using TAME as a substrate.

产品特点:

1. 可以排除病毒残留的风险和其它动物来源胰蛋白酶所具有的其它潜在风险。
2. 在胰岛素类似物生产方面，牛胰蛋白酶尤为重要，因为其它来源的胰蛋白酶，如人胰蛋白酶、鼠胰蛋白酶等等，对胰岛素类似物的切割效果不佳，同时会有引入病毒源的风险。

产品用途:

1. 第三代胰岛素的工业生产;
2. 胰蛋白酶具有相当好的特异性，仅水解精氨酸或赖氨酸残基的羧基端的肽键;
3. 蛋白质组学的生物学研究实验中，将蛋白酶解为肽，再进行质谱分析，比如胶内酶切等;

4. 溶解微形态的血栓和治疗胰腺炎症。

推荐使用方法:

使用 ddH₂O 溶解。

贮藏及效期:

4°C保存一年左右（根据用量分装后置于-20°C或-80°C，可保存更长时间，避免反复冻融）。干粉可以在-20°C或-80°C保存10年。

本产品仅用于研究使用，不可用于人体实验。

Recombinant Bovine Trypsin

Catalog Number: LTE004

EC: 3.4.21.4

Storage temperature: 2-8°C

Source: Recombinant Bovine trypsin is a genetically engineered protein expressed in *E.Coli*

AA Sequence:

IVGGYTCGANTVPYQVSLNSGYHFCGGSLINSQWVVSAAHCYKSGIQVRLGEDNINVVEGNEQ
FISASKSIVHPSYNSNTLNNDIMLIKLSAASLNSRVASISLPTSCASAGTQCLISGWGNTKSSGTS
YPDVLKCLKAPILSDSSCKSAYPGQITSNMFCAGYLEGGKDSCQGDSGGPVCVCSGKLGIVSWG
SGCAQKNKPGVYTKVCNYVSWIKQTIASN

Description: Bovine Trypsin is a member of the serine protease family also named as cation trypsin. Preferential cleavage: Arg-|-Xaa, Lys-|-Xaa. Our recombinant bovine trypsin is a genetically engineered protein expressed in *E.Coli*. And the amino acid sequence of recombinant trypsin is identical to bovine pancreas-derived trypsin, with equivalent properties compared to native trypsin but much higher purity.

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Autocatalytic cleavage after Lys-23 leads to beta-trypsin by releasing a terminal hexapeptide. Subsequent cleavage after Lys-148 leads to alpha-trypsin. Recombinant bovine trypsin can be applied in a variety of biotechnological processes, such as protein digestion in proteomics, the dissociation of attachment-dependent cell lines from plasticware, bioproduction process for certain biotherapeutics (Glargine production process) etc. The M.W. of recombinant bovine trypsin is 24KD, and the optimum working pH is pH 7.0-11.0. The enzyme can be inhibited by serine protease inhibitors, e.g. PMSF, soybean trypsin inhibitor and by metal chelating agents, e.g. EDTA etc.

Product Figures

Items	Standard	Result
Appearance	White powder	White powder
Authenticity *	Consistent	Consistent
Purity **	≥90%	92%
Endotoxin ***	<0.5 EU/mg	<0.5EU/mg
Enzymatic Activity ****	≥200 units/mg	≥200 units/mg

*: By Mass Spectrometry analyses.

** : By SDS-PAGE gel and HPLC analyses.

***: Determined by the LAL method

****: Unit definition : 1 U trypsin activity means the change of 0.001ΔD253nm/min at 30°C using TAME as a substrate.

Usage: the lyophilized trypsin powder can be resubstituted in 1 mM HCl or HAc, the enzyme concentration can be made up to 10mg/ml.

Stability of storage: Recombinant trypsin lyophilized powder should be stored under 2-8°C in sealed container. It is stable within 24 months. After dissolved with 1mM HCl or 50mM HAC, it should be stored under -20°C. Activity remains >90% even after 10 times repeated freezing and thawing.

Stability of transport: The product is stable by blue ice insulation transport.

For research use only, not be used in human experiments.