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Produktinformation

- Forschungsprodukte & Biochemikalien
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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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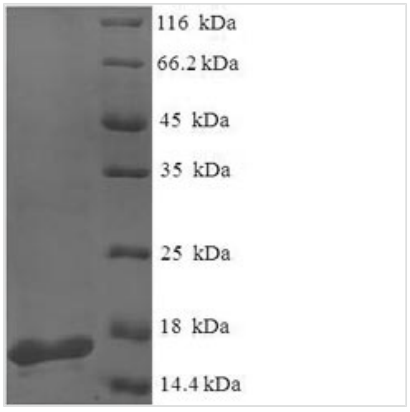
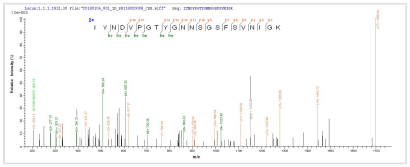
Recombinant Pseudomonas aeruginosa PA-I galactophilic lectin (lecA)

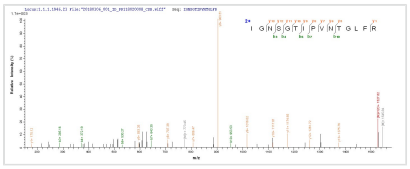
Product Code	CSB-EP313124EZX
Relevance	D-galactose specific lectin. Binds in decreasing order of affinity: melibiose, methyl-alpha-D-galactoside, D-galactose, methyl-beta-D-galactoside, N-acetyl-D-galactosamine. Similar to plant lectins in its selective (carbohydrate-specific) hagglutinating activity.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q05097
Alias	Galactose-binding lectin
Product Type	Recombinant Protein
Immunogen Species	Pseudomonas aeruginosa (strain ATCC 15692 / PAO1 / 1C / PRS 101 / LMG 12228)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	AWKGEVLANNEAGQVTSIIYNPGDVITIVAAGWASYGPTQKWGPQGDREHPDQGLICHDAFCGALVMKIGNSGTIPVNTGLFRWVAPNNVQGAITLIYNDVPGTYGNNSGSFSVNIGKDQS
Research Area	Others
Source	E.coli
Target Names	lecA
Expression Region	2-122aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	16.8kDa
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP313124EZX could indicate that this peptide derived from E.coli-expressed Pseudomonas aeruginosa (strain ATCC 15692 / DSM 22644 / CIP 104116 / JCM 14847 / LMG 12228 / 1C / PRS 101 / PAO1) lecA.



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Description

The recombinant Pseudomonas aeruginosa lecA protein is a fusion protein consists of the Pseudomonas aeruginosa lecA protein (2-122aa) partnered with the N-terminal 6xHis tag. It was produced in the E.coli. This recombinant lecA protein's purity is greater than 90% determined by SDS-PAGE. After electrophoresis, there is a 16 kDa protein band presented on the gel.

LecA is a cytotoxic lectin and adhesin produced by Pseudomonas aeruginosa which binds hydrophobic galactosides with high specificity and affinity. Certain research showed that lecA is expressed in biofilm-grown cells. The carbohydrate-binding protein LecA from Pseudomonas aeruginosa plays an important role in the formation of biofilms in chronic infections. Development of inhibitors to disrupt LecA-mediated biofilms is desired but it is limited to carbohydrate-based ligands. Moreover, discovery of drug-like ligands for LecA is challenging because of its weak affinities. Lectins are carbohydrate-binding proteins with diverse functions that are found in all domains of life. Lectins are involved in the infection process of the Gram-negative bacterium Pseudomonas aeruginosa, an important member of the often highly drug-resistant ESKAPE pathogens. The two bacterial lectins LecA and LecB, are virulence factors that are important for bacterial adhesion. LecA and LecB, which can be specific for galactose and fucose (Fuc), respectively. The affinity of Fuc and LecB was much higher than that of galactose and LecA. Multiple saccharin and saccharide inhibitors targeting LecB have successfully applied to treat P. aeruginosa infection.

Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.