Recombinant E.coli Beta-galactosidase Protein

Catalog Number: PKSQ050060

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

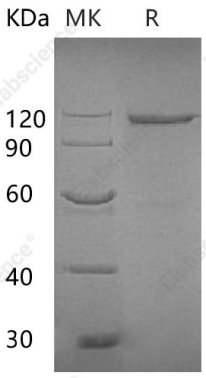
Description

Species	E.coli
Source	E.coli-derived E.coli Beta-galactosidase protein Met1-Lys1024(12-41AA deletion)
Calculated MW	112.9 kDa
Observed MW	115 kDa
Accession	P00722
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Concentration	Subject to label value.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/ gel packs. Upon receipt, store it immediately at < - 20°C.
Formulation	Supplied as a 0.2 μm filtered solution of 20mM Tris-HCl, 150mM NaCl 8% Trehalose, 0.05% Tween 80, pH8.1.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

β-galactosidase is an exoglycosidase which hydrolyzes the β-glycosidic bond formed between a galactose and its organic moiety. It may also cleave fucosides and arabinosides but with much lower efficiency. β-galactosides include carbohydrates containing galactose where the glycosidic bond lies above the galactose molecule. Substrates of different β-galactosidases include ganglioside GM1, lactosylceramides, lactose, and various glycoproteins. It is an essential enzyme in the human body. Deficiencies in the protein can result in galactosialidosis or Morquio B syndrome. In E. coli, the gene of β-galactosidase, the lacZ gene, is present as part of the inducible system lac operon which is activated in the presence of lactose when glucose level is low. β-galactosidase is important for organisms as it is a key provider in the production of energy and a source of carbons through the break down of lactose to galactose and glucose.

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