

Recombinant E.coli Beta-galactosidase Protein

Catalog No. PKSQ050060

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

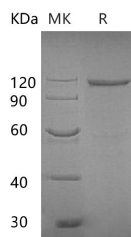
Description

Synonyms	Beta-galactosidase;Beta-gal;Lactase;lacZ
Species	E.coli
Expression Host	E.coli
Sequence	Met1-Lys1024(12-41AA deletion)
Accession	P00722
Calculated Molecular Weight	112.9 kDa
Observed molecular weight	115 kDa
Tag	None
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
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 PBS, pH7.4.
Reconstitution	Not Applicable

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

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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.