Recombinant E.coli Beta-galactosidase Protein

Catalog Number: PKSO050060



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

Description

Synonyms Beta-galactosidase;Beta-gal;Lactase;lacZ

SpeciesE.coliExpression HostE.coli

Sequence Met1-Lys1024(12-41AA deletion)

Accession P00722

Calculated Molecular Weight 112.9 kDa

Observed molecular weight 115 kDa

Tag None

Properties

Purity > 95 % as determined by reducing SDS-PAGE.

Endotoxin $< 1.0 \text{ EU per } \mu \text{g of the protein as determined by the LAL method.}$

Storage Storage Store at $< -20^{\circ}$ C, stable for 6 months. Please minimize freeze-thaw cycles.

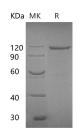
Shipping This product is provided as liquid. It is shipped at frozen temperature with blue

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 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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