Recombinant Protein Technical Manual

Recombinant E. coli Beta-galactosidase Protein(M443L, C500S) (Fc Tag)

RPES3494

Product Data:

Product SKU: RPES3494

Size: 10µg

Species: E. coli

Expression host: E. coli

Uniprot: P00722

Protein Information:

Molecular Mass: 112.9 kDa

AP Molecular Mass: 115 kDa

Tag: C-Fc

Bio-activity:

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

Endotoxin: < 1.0 EU per µg 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. Upon receipt, store it immediately at<-20°C.

Formulation: Supplied as a 0.2 µm filtered solution of 20mM Tris,150mM NaCl,pH8.0.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

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

Immunogen Information:

Sequence: Met1-Lys1024(12-41AA deletion)

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.