

## Product datasheet for **TP727555**

### lacZ Escherichia coli Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant E.coli Beta-galactosidase (M443L, C500S)
Species:	Escherichia coli
Expression cDNA Clone or AA Sequence:	Met1-Lys1024(12-41AA deletion)
Buffer:	Supplied as a 0.2 um filtered solution of 20mM Tris-HCl, 150mM NaCl, pH 8.0.
Note:	Recombinant E.coli Beta-galactosidase(M443L, C500S) is produced by our E.coli expression system and the target gene encoding Met1-Lys1024(12-41AA deletion) is expressed.
Stability:	12 months from date of despatch
Locus ID:	945006
UniProt ID:	<a href="#">P00722</a>
Summary:	<p><math>\beta</math>-galactosidase is an exoglycosidase which hydrolyzes the <math>\beta</math>-glycosidic bond formed between a galactose and its organic moiety. It may also cleave fucosides and arabinosides but with much lower efficiency. <math>\beta</math>-galactosides include carbohydrates containing galactose where the glycosidic bond lies above the galactose molecule. Substrates of different <math>\beta</math>-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 <math>\beta</math>-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. <math>\beta</math>-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.</p>



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