

## 32-8830: Recombinant E.coli Beta-galactosidase (M443L, C500S)

**Gene :** lacZ  
**Gene ID :** 945006  
**Uniprot ID :** P00722

### Description

Source: E.coli.  
MW :112.9kD.

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. beta-galactosidase is an exoglycosidase which hydrolyzes the beta-glycosidic bond formed between a galactose and its organic moiety. It may also cleave fucosides and arabinosides but with much lower efficiency. beta-galactosides include carbohydrates containing galactose where the glycosidic bond lies above the galactose molecule. Substrates of different beta-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 beta-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. beta-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.

### Product Info

**Amount :** 10 µg / 50 µg  
**Content :** Supplied as a 0.2 µm filtered solution of 20mM Tris,150mM NaCl,pH8.0.  
**Storage condition :** Store at -20°C, stable for 6 months after receipt. Please minimize freeze-thaw cycles.  
**Amino Acid :** MTMITDSLAVVEARTDRPSQQLRSLNGEWRFAWFPAPEAVPESWLECDLPEADTVVVPNSWQMHHGYDAPIYT  
NVTYPITVNPFPVTENPTGCYSLTFNVDESWLQEGQTRIFDGVNSAFHLWCNGRWVGYGQDSRLPSEFDLS  
AFLRAGENRLAVMVLRWSDGSYLEDDQDMWRMSGIFRDVSLHKKPTTQISDFHVATRFNDDFSRAVLEAEVQM  
CGELRDYLRVTVSLWQGETQVASGTAPFGGEIIDERGGYADRVTLRLNVENPKLWSAEIPNLYRAVVELHTAD  
GTLIEAEACDVGFREVRIENGLLLLNGKPLLIRGVNRHEHHPLHGQVMDEQTMVQDILLMKQNNFNVAVRCSHY  
PNHPLWYTLCDRYGLYVVDANIETHGMVPMNRLTDDPRWLPAMSERVTRLVQRDRNHPSVIIWVSLGNESGH  
GANHDALYRWIKSVDPSPVQYEGGGADTTATDIISPMYARVDEDDQFPAPVPKWSIKKWLSPGETRPLILCEY  
AHAMGNSLGGFAKYWQAFRQYPRQLQGGFVVDWVQSLIKYDENGPNWSAYGGDFGDTNDRQFCMNGLV  
FADRTPHPALTEAKHQQFFQFRLSGQTIEVTSEYLFRRHSDNELLHWMVALDGGKPLASGEVPLDVAPQGGKQIE  
LPELPQESAGQLWLTVRVVPNATAWSEAGHISAWQQWRLEAENLSVTLPAASHAIPHLTTSEMDFCIELGNK  
RWQFNRSQSGFLSQMWIGDKKQLLTPLRDQFTRAPLDNDIGVSEATRIPNAWVERWKAAGHYQAEALLQCT  
ADTLADAVLITTAHAWQHQQKTLFISRKTYRIDGSGQMAITVDVEASDTPHARIGLNCQLAQAERVNWLG  
LGPQENYDRLTAACFDRWDLPLSDMYTPYVFPSENGLRGCTRELNYGPHQWRGDFQFNISRYSQQLMETS  
HRHLLHAEEGTWNLDGFHMGIGGDDSWSPSVSAEFQLSAGRYHYQLVWCQK

### Application Note

**Endotoxin :** Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.