

# Mouse Anti-Bacteria $\beta$ -Galactosidase Monoclonal Antibody

## Mouse, Monoclonal ( $\beta$ -Galactosidase)

Cat. No. DMAB9445

Lot. No. (See product label)

### PRODUCT INFORMATION

**Product Overview:** Mouse monoclonal antibody to bacteria E. coli  $\beta$ -galactosidase.

**Immunogen:**  $\beta$ -galactosidase from bacteria E. coli.

**Host Animal:** Mouse

**Isotype:** IgG2a, kappa light chain

**Applications:** Immunoprecipitation; Immunoblotting

**Antigen Molecular weight:** 119 kDa

### ANTIGEN BACKGROUND

**Introduction:**  $\beta$ -galactosidase, also called beta-gal or  $\beta$ -gal, is a hydrolase enzyme that catalyzes the hydrolysis of  $\beta$ -galactosides into monosaccharides. Substrates of different  $\beta$ -galactosidases include ganglioside GM1, lactosylceramides, lactose, and various glycoproteins. Lactase is often confused as an alternative name for  $\beta$ -galactosidase, but it is actually simply a sub-class of  $\beta$ -galactosidase.  $\beta$ -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. 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.

**Keywords:** Beta D galactosidase; Beta gal; Beta galactosidase; EC 3.2.1.23; ECK0341; JW0335; lactase; lacZ; GLB1

### REFERENCES

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45-16 Ramsey Road Shirley, NY 11967, USA  
Tel: 631-624-4882 · Fax: 631-614-7828  
E-mail: [info@creative-diagnostics.com](mailto:info@creative-diagnostics.com)  
[www.creative-diagnostics.com](http://www.creative-diagnostics.com)