

R1064**Polyclonal Antibody to Beta-galactosidase tag - Serum**

Alternate names:	Beta-Gal Fusion Protein, Beta-Gal tag, JW0335, Lactase, b0344, lacZ tag
Quantity:	2 ml
Concentration:	75 mg/ml (by refractometry)
Background:	Beta-galactosidase is coded by a gene (lac z) in the lac operon of Escherichia coli. It is a metalloenzyme that splits lactose into glucose and galactose. It hydrolyzes terminal, non-reducing beta-D-galactose residues in beta-D-galactosides. Activation by cations seems to be substrate dependent. K ⁺ , Na ⁺ , NH ₄ ⁺ , Rb ⁺ , Cs ⁺ and Mn ⁺⁺ all activate enzyme activity based upon the substrate used.
Uniprot ID:	P00722
NCBI:	AP_000996.1
GeneID:	945006
Host:	Rabbit
Immunogen:	Beta-galactosidase from E. coli
Format:	State: Lyophilized serum Purification: Purified from monospecific antiserum by Delipidation and Defribination. Buffer System: 0.02 M Potassiumphosphate, 0.15 M Sodium chloride, pH 7.2 with 0.01% Sodium azide as preservative Reconstitution: Restore with 2.0 ml of deionized water (or equivalent).
Applications:	Suitable for Immunoblotting (Western or Dot blot), ELISA, Immunoprecipitation and most immunological methods requiring high titer and specificity. <u>Recommended Dilutions:</u> ELISA: 1/65,000. Western blot: 1/500-1/2,000. IHC: 1/500. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	Assay by immunoelectrophoresis resulted in a single precipitin arc against purified and partially purified Beta Galactosidase [E. coli]. Cross reactivity against Beta Galactosidase from other sources may occur but have not been specifically determined.
Storage:	Store vial at 2-8°C prior to restoration. Centrifuge product if not completely clear after standing at room temperature. This product is stable for one month at 2-8°C as an undiluted liquid. For extended storage aliquot contents and freeze at -20°C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use. Shelf life: one year from despatch.

Pictures:

Figure 1. Western blotting using Fluorescein conjugated anti-Beta-galactosidase antibody shows a band at ~117 kDa (lanes 1 - 3) corresponding to 60 ng, 30 ng and 15 ng, respectively of b-Gal present in partially purified preparations (arrowhead). Lane 4 shows no cross reactivity with proteins present in a non-specific control *E. coli* lysate. Proteins were resolved on a 4-20% Tris-glycine gel by SDS-PAGE and transferred to Nitrocellulose and blocking using blocking buffer for fluorescent Western blotting. The membrane was probed with Fluorescein conjugated anti-Beta-galactosidase (Cat.-No. R1064F) diluted to 1/10,000. Reaction occurred for 2 hours at room temperature. Molecular weight estimation was made by comparison to a prestained MW marker in lane M. Fluorescence image was captured using the VersaDoc® Imaging System. Other detection systems will yield similar results.

