

R1064HRPS**Polyclonal Antibody to Beta-galactosidase tag - HRP****Alternate names:**

Beta-Gal Fusion Protein, Beta-Gal tag, JW0335, Lactase, b0344, lacZ tag

Quantity:

0.1 mg

Concentration:

1.0 mg/ml (by UV absorbance at 280 nm)

Uniprot ID:[P00722](#)**NCBI:**[AP_000996.1](#)**GeneID:**[945006](#)**Host:**

Rabbit

Immunogen:Beta-galactosidase isolated from *E.coli***Format:****State:** Lyophilized purified IgG fraction**Purification:** Multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer**Buffer System:** 0.02M Potassium phosphate, 0.15M Sodium chloride, pH 7.2**Preservatives:** 0.01% (w/v) Gentamicin sulfate (Do NOT add Sodium azide!)**Stabilizers:** 10 mg/ml BSA (immunoglobulin and protease free)**Label:** HRP – Horseradish peroxidase**Reconstitution:** Restore with 0.1 ml of deionized water (or equivalent).**Applications:**

Suitable for Immunoblotting (Western or dot blot), ELISA, Immunofluorescence microscopy, Immunoprecipitation, conjugation and most immunological methods requiring high titer and specificity.

Western blot: 1/5,000-1/10,000.

A 1/5,000 dilution has been reported to be successful for staining by Immunoblot of Beta-galactosidase fusion proteins after transfer using a semi-dry transfer apparatus).

ELISA: 1/10,000.**Immunohistochemistry:** 1/1,500.

The antibody recognizes both Frozen tissue sections, Paraffin embedded tissue and 4% paraformaldehyde fixed tissue for most immunohistochemical analysis: A 1/1,500 dilution has been reported to detect Beta-galactosidase in adult rat spinal cord tissue after infection with helper-dependent adenovirus expressing lacZ. In this particular experiment, tissue was perfused with 4% paraformaldehyde and cryostat-cut (35 µm) to produce free-floating sections.

A 1/5,000 dilution has been reported for immunofluorescent staining of methanol fixed, devitellinized *Drosophila* embryos. Although a wide range of conditions was reported to be effective, a 1/10,000 dilution was noted to show no background and to be suitable for double labeling experiments).A 1/5,000 dilution has been reported to be successful for staining brain sections from transgenic mice expressing nuclear Beta-galactosidase when assayed by **Immunofluorescence microscopy**.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:	<p>This antibody detects Beta-galactosidase [<i>E. coli</i>]. Cross reactivity against Beta-galactosidase from other tissues and species may occur but have not been specifically determined. Very low background staining has been reported in various assays.</p> <p>Immunoelectrophoresis gives a single precipitin arc against anti-peroxidase, and anti-rabbit serum as well as purified and partially purified Beta-galactosidase [<i>E.coli</i>].</p>
Storage:	<p>Store lyophilized at 2-8°C for 6 months or at -20°C long term.</p> <p>After reconstitution store undiluted at 2-8°C for one month or (in aliquots) at -20°C long term.</p> <p>Avoid repeated freezing and thawing.</p> <p>Shelf life: one year from despatch.</p>
General Readings:	<ol style="list-style-type: none"> 1. Huber RE, Hakda S, Cheng C, Cupples CG, Edwards RA. Trp-999 of beta-galactosidase (<i>Escherichia coli</i>) is a key residue for binding, catalysis, and synthesis of allolactose, the natural lac operon inducer. <i>Biochemistry</i>. 2003 Feb 18;42(6):1796-803. PubMed PMID: 12578395. 2. Matthews BW. The structure of <i>E. coli</i> beta-galactosidase. <i>C R Biol</i>. 2005 Jun;328(6):549-56. PubMed PMID: 15950161.