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#3177

BiP (C50B12) Rabbit mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IHC-P, FC-FP	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 78	Source/Isotype: Rabbit IgG	UniProt ID: #P11021	Entrez-Gene Id: 3309
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Product Usage Information

Application

Western Blotting
Immunohistochemistry (Paraffin)
Flow Cytometry (Fixed/Permeabilized)

Dilution

1:1000
1:100 - 1:400
1:100 - 1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #63411.

Specificity/Sensitivity

BiP (C50B12) Rabbit mAb detects endogenous levels of total BiP protein.

Source / Purification

BiP (C50B12) Rabbit mAb is produced by immunizing rabbits with a synthetic peptide corresponding to residues surrounding Gly584 of human BiP.

Background

Secretory and transmembrane proteins are synthesized on polysomes and translocated into the endoplasmic reticulum (ER). Inside the ER, these proteins are often modified by disulfide bond formation, amino-linked glycosylation and folding. To help proteins fold properly, the ER contains a pool of molecular chaperones including BiP. BiP was identified as an immunoglobulin heavy chain binding protein in pre-B cells (1,2). It was also found to be induced at the protein level by glucose starvation (3). When protein folding is disturbed inside ER, BiP synthesis is increased. Subsequently, BiP binds to misfolded proteins to prevent them from forming aggregates and assists in proper refolding (4).

Background References

1. Wabl, M. and Steinberg, C. (1982) *Proc Natl Acad Sci U S A* 79, 6976-8.
2. Haas, I.G. and Wabl, M. (1983) *Nature* 306, 387-9.
3. Munro, S. and Pelham, H.R. (1986) *Cell* 46, 291-300.
4. Kohno, K. et al. (1993) *Mol Cell Biol* 13, 877-90.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IHC-P:** Immunohistochemistry (Paraffin) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human **M:** Mouse

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