

**BiP Antibody**

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	78	Rabbit	#P11021	3309

**Product Usage Information****Application**

Western Blotting

**Dilution**

1:1000

**Storage**

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

**Specificity/Sensitivity**

BiP Antibody detects endogenous levels of total BiP protein.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg26 of human BiP protein. Antibodies are purified by protein A and peptide affinity chromatography.

**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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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