

BiP Antibody

✓ 100 µl
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity	Molecular Wt.	Source
W Endogenous	H, M, R, Mk	78 kDa	Rabbit**

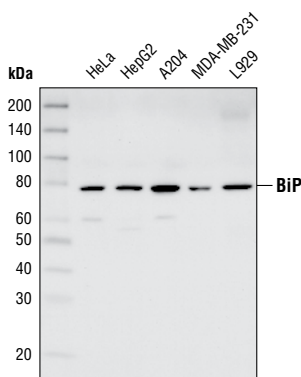
Background: Secretory and transmembrane proteins are synthesized on polysomes and translocated into the endoplasmic reticulum (ER). Inside the ER, these proteins are often modified by disulfide bond formation, amino-linked glycosylation and folding. To help proteins fold properly, the ER contains a pool 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 them to refold properly (4).

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 the sequence of human BiP. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Wabl, M. and Steinberg, C. (1982) *Proc. Natl. Acad. Sci. USA* 79, 6976–6978.
- (2) Haas, I.G. and Wabl, M. *Nature* 306, 387–389.
- (3) Munro, S. and Pelham, H.R. (1986) *Cell* 46, 291–300.
- (4) Kohno, K. et al. (1993) *Mol. Cell Biol.* 13, 877–890.



Western blot analysis of extracts from several cell lines using BiP Antibody.

Entrez-Gene ID #3309
Swiss-Prot Acc. #P11021

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.

*Species cross-reactivity is determined by western blot.

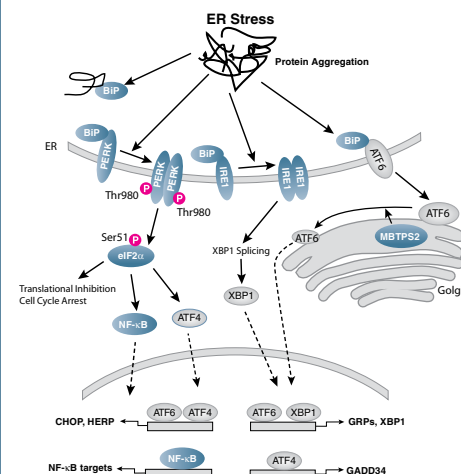
**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.



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

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.