

BiP Antibody

✓ 100 µl
(10 Western mini-blots)

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

rev. 08/26/08

This product is for *in vitro* research use only and is not intended for use in humans or animals.
This product is not intended for use as a therapeutic or in diagnostic procedures.

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

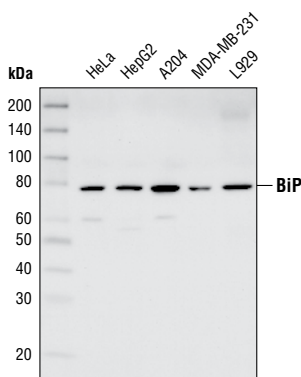
Background: Secretory and transmembrane proteins are synthesized on polysomes and translocated into the endoplasmic reticulum (ER). Inside the ER, these proteins are often modified by disulfide bond formation, amino-linked glycosylation and folding. To help proteins fold properly, the ER contains a pool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

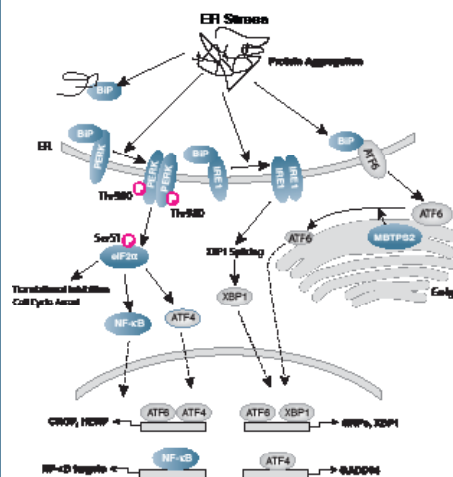
Western blotting 1:1000

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

Companion Products:

- eIF2α Antibody #9722
- Phospho-eIF2α (Ser51) (119A11) Rabbit mAb #3597
- Phospho-eIF2α (Ser51) Antibody #9721
- Phospho-eIF2α (Ser51) Blocking Peptide #1221
- Phototope®-HRP Western Blot Detection System, Anti-rabbit IgG, HRP-linked Antibody #7071
- Anti-rabbit IgG, HRP-linked Antibody #7074
- Prestained Protein Marker, Broad Range (Premixed Format) #7720
- Biotinylated Protein Ladder Detection Pack #7727
- 20X LumiGLO® Reagent and 20X Peroxide #7003

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—zebra fish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% sequence homology.