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IRE1p Antibody

IRE1p (NT): Endoplasmic reticulum-to-nucleus signaling 1, ERN1

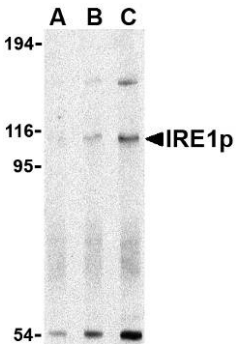
CATALOG NO.: 3657

BACKGROUND:
Accumulation of malfolded proteins in the endoplasmic reticulum (ER) activates the unfolded protein response (UPR) and the upregulation of the ER molecular chaperones GRP78 and GRP 94 (1,2). These proteins are normally bound to ER transmembrane proteins such as IRE1p and ATF6 (3,4) but ER stress causes their dissociation. This allows IRE1p, a serine-threonine protein kinase to transduce the unfolded protein signal from the ER to the nucleus. IRE1p also has an endoribonuclease activity that is required to splice X-box binding protein (XBP1) mRNA converting it to a potent UPR transcriptional activation (5). Depletion of IRE1p through the expression of a dominant negative form of IRE1p has no effect on transfected cells, but cell death via apoptosis occurs under stress conditions that cause unfolded proteins to accumulate in the ER (6). Two alternatively spliced transcript variants encoding different isoforms have been found for this gene.

SOURCE:
Rabbit polyclonal IRE1p antibody was raised against a 15 amino acid peptide from near the amino terminus of human IRE1p (Genbank accession No. O75460).

APPLICATION:
IRE1p antibody can be used for the detection of IRE1p by Western blot at 1 – 2 µg/ml. (Optimal dilution should be determined by user.) A-20 cell lysate can be used as positive control. IRE1p antibody is human, mouse and rat reactive. **This product is for research use only.**

STORAGE:
IRE1p antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4˚C, stable for one year.



Western blot analysis of IRE1p in A-20 cell lysate with IRE1p antibody at (A) 0.5, (B) 1 and (C) 2 µg/ml.

RELATED PRODUCTS:
Blocking peptide, Catalog No. **3657P.**
A-20 Cell Lysate, Catalog No. **1288.**
IRE1p Antibody (CT), Catalog No. **3655.**
IRE1p Antibody (IN), Catalog No. **3659.**
ATF6 Antibody (CT), Catalog No. **3681.**
XBP1 Antibody (CT), Catalog No. **3685.**

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