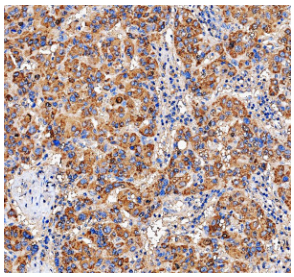
BiP Antibody / GRP78 / HSPA5 (R30913)

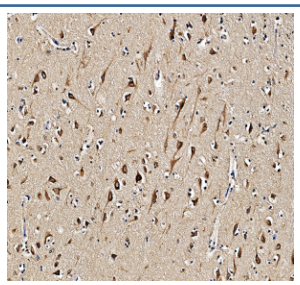
Catalog No.	Formulation	Size
R30913	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

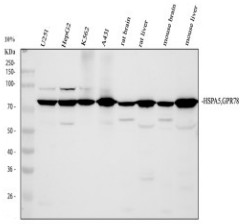
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P11021
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This BiP antibody is available for research use only.



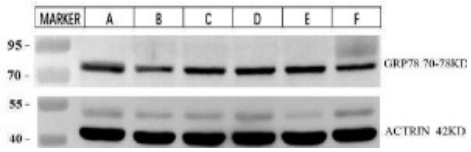
BiP Antibody Human Liver Cancer IHC. IHC staining of FFPE human liver cancer tissue was performed with BiP Antibody at 2 ug/ml following heat-induced epitope retrieval in pH 8 EDTA buffer. HRP-conjugated secondary antibody and DAB were used for detection. BiP staining is observed predominantly in the cytoplasm of tumor cells, with strong widespread staining throughout the cancer tissue. This BiP Antibody demonstrates localization of HSPA5/GRP78 in human liver cancer tissue.



BiP Antibody Human Cerebral Cortex IHC. IHC staining of FFPE human cerebral cortex tissue was performed with BiP Antibody at 2 ug/ml following heat-induced epitope retrieval in pH 8 EDTA buffer. HRP-conjugated secondary antibody and DAB were used for detection. BiP staining is observed in neurons throughout the cerebral cortex, with prominent cytoplasmic staining in neuronal cell bodies and processes. This BiP Antibody demonstrates localization of HSPA5/GRP78 in human cerebral cortex tissue.



BiP Antibody Human, Mouse and Rat WB. Western blot analysis was performed with BiP Antibody on human U251, HepG2, K562 and A431 cell lysates (lanes 1-4), rat brain and liver tissue lysates (lanes 5-6), and mouse brain and liver tissue lysates (lanes 7-8). Samples were separated by 10% SDS-PAGE under reducing conditions, and the antibody was used at 0.17 ug/ml overnight at 4oC. A prominent band is detected at approximately 78 kDa, consistent with the expected migration of BiP/HSPA5/GRP78. This BiP Antibody demonstrates detection of HSPA5 across human, mouse and rat samples.



BiP Antibody Porcine Intestine WB. Western blot analysis was performed with BiP Antibody on lysates from six different segments of porcine large and small intestine (lanes 1-6). Samples were separated by 5-20% SDS-PAGE under reducing conditions, and the antibody was used at 1:2000 overnight at 4oC. A specific band is detected at approximately 70-78 kDa, consistent with the expected molecular weight of BiP/HSPA5/GRP78. Actin at approximately 42 kDa is shown as a loading control. This BiP Antibody demonstrates detection of HSPA5/GRP78 across multiple regions of porcine intestinal tissue.

Description

HSPA5 (heat shock 70kDa protein 5) also known as glucose-regulated protein, 78kD (GRP78) or BiP, is a member of the heat-shock protein-70 (HSP70) family and is involved in the folding and assembly of proteins in the endoplasmic reticulum. BiP is an essential component of the translocation machinery, as well as playing a role in retrograde transport across the ER membrane of aberrant proteins destined for degradation by the proteasome. Shen et al.(2002) concluded that BiP retains ATF6 in the ER by inhibiting its Golgi localization signals and that dissociation of BiP during ER stress allows ATF6 to be transported to the Golgi. The findings of Shen et al.(2002) demonstrated that the protein is a key element in sensing the folding capacity within the ER.

For additional antibodies targeting BiP / HSPA5, including products validated across multiple species and applications, visit our GRP78 Antibody page for endoplasmic reticulum stress and protein-folding research.

Application Notes

The stated application concentrations are suggested starting points. Titration of the BiP antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the C-terminus of human GRP78/BiP (EWLESHQDADIEDFK) was used as the immunogen for this BiP antibody (100% homologous in human, mouse and rat).

Storage

After reconstitution, the BiP antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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