

Anti-GRP78 / BIP Antibody [A5-C9-G6]

M1701-1



Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB
Molecular Wt:	Predicted band size: 72 kDa
Clone number:	A5-C9-G6

Description: The HSP 70 family is composed of four highly conserved proteins: HSP 70, HSC 70, GRP 75 and GRP 78. These proteins serve a variety of roles: they act as molecular chaperones facilitating the assembly of multi-protein complexes, participate in the translocation of polypeptides across cell membranes and to the nucleus, and aid in the proper folding of nascent polypeptide chains. All members of the family, except HSP 70, are constitutively expressed in primate cells. HSP 70 expression is strongly induced in response to heat stress. HSP 70 and HSC 70 play key roles in the cytosolic endoplasmic reticulum and mitochondrial import machinery and are found in both the cytosol and nucleus of mammalian cells. Both HSP 70 and HSC 70 are involved in the chaperoning of nascent polypeptide chains and in protecting cells against the accumulation of improperly folded proteins. GRP 78 is localized in the endoplasmic reticulum, where it receives imported secretory proteins and is involved in the folding and translocation of nascent peptide chains. GRP 75 expression is restricted to the mitochondrial matrix and aids in the translocation and folding of nascent polypeptide chains of both nuclear and mitochondrial origin. GRP 75 and GRP 78 are unresponsive to heat stress and are induced by glucose deprivation. It has been postulated that members of the HSP 70 family act as force-generating motors, relying on the hydrolysis of ATP for their activity.

Immunogen: Synthetic peptide within Human GRP78 aa 1-50 / 654.

Positive control: L-929 cell lysate, U-87 MG cell lysate, RAW264.7 cell lysate, RAW264.7 treated with 300nM Thapsigargin for 18 hours cell lysate, mouse liver tissue lysate, rat liver tissue lysate, rat pancreas tissue lysate.

Subcellular location: Endoplasmic reticulum lumen. Melanosome. Cytoplasm.

Database links: SwissProt P11021 Human | P20029 Mouse | P06761 Rat

Recommended Dilutions:

WB 1:1,000-1:5,000

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% SodiumAzide.

Storage Instruction: Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

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Images

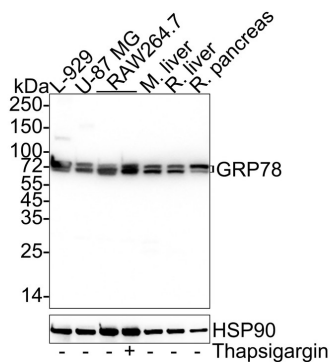


Fig1: Western blot analysis of GRP78 / BIP on different lysates with Mouse anti-GRP78 / BIP antibody (M1701-1) at 1/1,000 dilution.

Lane 1: L-929 cell lysate
 Lane 2: U-87 MG cell lysate
 Lane 3: RAW264.7 cell lysate
 Lane 4: RAW264.7 treated with 300nM Thapsigargin for 18 hours cell lysate
 Lane 5: Mouse liver tissue lysate
 Lane 6: Rat liver tissue lysate
 Lane 7: Rat pancreas tissue lysate

Lysates/proteins at 30 µg/Lane.

Predicted band size: 72 kDa
 Observed band size: 70/72 kDa

Exposure time: 6 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFD/MTBST for 1 hour at room temperature. The primary antibody (M1701-1) at 1/1,000 dilution was used in 5% NFD/MTBST at 4°C overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Kaliberov SA et al. Retargeted adenoviruses for radiation-guided gene delivery. *Cancer Gene Ther* 23(9):303-14 (2016).
2. Kang K et al. Carnosic acid slows photoreceptor degeneration in the Pde6b(rd10) mouse model of retinitis pigmentosa. *Sci Rep* 6:22632 (2016).

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