

Anti-GRP78/BIP/HSPA5 Antibody (Monoclonal, 33H82)

Catalog Number: M00955-5

About HSPA5

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 also 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. The HSPA5 gene is mapped on 9q33.3. Shen et al. (2002) concluded that HSPA5 retains ATF6 in the ER by inhibiting its Golgi localization signals and that dissociation of HSPA5 during ER stress allows ATF6 to be transported to the Golgi. The findings of Shen et al. (2002) demonstrated that HSPA5 is a key element in sensing the folding capacity within the ER.

Overview

Product Name	Anti-GRP78/BIP/HSPA5 Antibody (Monoclonal, 33H82)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-GRP78/BIP/HSPA5 Antibody (Monoclonal, 33H82) catalog # M00955-5. Tested in WB, IHC, IF applications. This antibody reacts with Human, Mouse, Rat.
Application	IF, IHC, WB
Clonality	Monoclonal 33H82
Formulation	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P11021

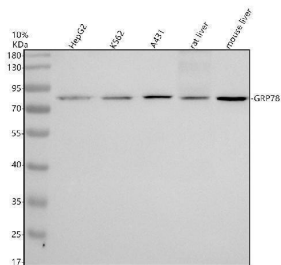
Technical Details

Immunogen	Recombinant protein within Human GRP78 / BIP aa 3-98.
Form	Liquid
Concentration	500 ug/ml
Purification	Protein A affinity purified.

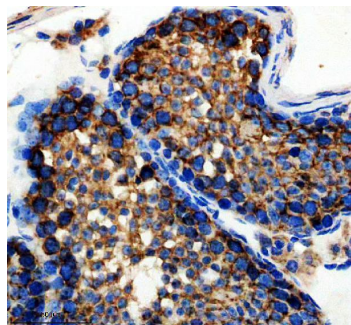
Suggested Dilutions

Western blot, 1:500-2000
Immunohistochemistry, 1:50-200
Immunofluorescence, 1:50-200

Anti-GRP78/BIP/HSPA5 Antibody (Monoclonal, 33H82) (M00955-5) Images



Western blot analysis of GRP78/BIP/HSPA5 using anti-GRP78/BIP/HSPA5 antibody (M00955-5). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human HepG2 whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human A431 whole cell lysates, Lane 4: rat liver tissue lysates, Lane 5: mouse liver tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-GRP78/BIP/HSPA5 antigen affinity purified monoclonal antibody (M00955-5) at 1:500 overnight at 4°C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for GRP78/BIP/HSPA5 at approximately 78 kDa. The expected band size for GRP78/BIP/HSPA5 is at 72 kDa.



IHC analysis of GRP78/BIP/HSPA5 using anti-GRP78/BIP/HSPA5 antibody (M00955-5). GRP78/BIP/HSPA5 was detected in a paraffin-embedded section of mouse testis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-GRP78/BIP/HSPA5 Antibody (M00955-5) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

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