

Anti-GRP78/BIP/HSPA5 Antibody Picoband®

Catalog Number: A00955

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

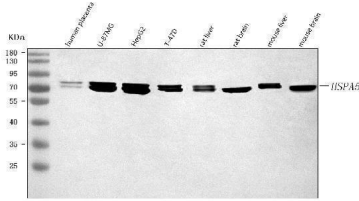
Product Name	Anti-GRP78/BIP/HSPA5 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-GRP78/BIP/HSPA5 Antibody Picoband® catalog # A00955. Tested in ELISA, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	P11021

Technical Details

Immunogen	E.coli-derived human GRP78/BIP/HSPA5 recombinant protein (Position: D78-S607).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.25 µg/ml, Human, Mouse, Rat ELISA, 0.1-0.5 µg/ml, -

Anti-GRP78/BIP/HSPA5 Antibody Picoband® (A00955) Images



Western blot analysis of GRP78/BIP/HSPA5 using anti-GRP78/BIP/HSPA5 antibody (A00955). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human placenta tissue lysates, Lane 2: human U-87MG whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: human T-47D whole cell lysates, Lane 5: rat liver tissue lysates, Lane 6: rat brain tissue lysates, Lane 7: mouse liver tissue lysates, Lane 8: mouse brain 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 polyclonal antibody (Catalog # A00955) at 0.25 ug/mL 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 Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) 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 78 kDa.

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Anti-GRP78/BIP/HSPA5 Antibody

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