Data Sheet (Cat.No.TMAB-06799)

Anti-GRP78/Bip Antibody (4S162)

Product Details

Ig Type:	IgG
Reactivity:	Human (predicted:Rat)
Molecular Weight:	Theoretical: 78 kDa. Actual: 78 kDa.
Clone:	4S162
Purification:	Protein G purified

Applications

Verified Activity:	1. Sample: U87Mg (Human) Cell Lysate at 30 µg Hela (Human) Cell Lysate at 30 µg HepG2 (Human) Cell Lysate at 30 µg MDA-MB-231 (Human) Cell Lysate at 30 µg U251 (Human) Cell Lysate at 30 µg U2os (Human) Cell Lysate at 30 µg Primary: Anti-GRP78/Bip (TMAB-06799) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Mouse IgG at 1/20000 dilution Predicted band size: 78 kD Observed band size: 78 kD 2. HepG2 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Antibody incubation with (GRP78/Bip) monoclonol Antibody, Unconjugated (TMAB-06799) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Mouse IgG antibody at 37°C for 90 minutes, DAPI (blue) was used to stain the cell nuclei.
Application:	WB,ICC/IF
Recommended	WB: 1:500-1000; ICC/IF: 1:100-500

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human GRP78/Bip
Antigen Species:	Human
Gene ID:	3309
Uniprot ID:	P11021

Research Background

The 78 kDa glucose regulated protein/BiP (GRP78) belongs to the family of ~70 kDa heat shock proteins (HSP 70). GRP78 is a resident protein of the endoplasmic reticulum (ER) and may associate transiently with a variety of newly

synthesized secretory and membrane proteins or permanently with mutant or defective proteins that are incorrectly folded, thus preventing their export from the ER lumen. GRP78 is a highly conserved protein that is essential for cell viability. The highly conserved sequence Lys-Asp-Glu-Leu (KDEL) is present at the C terminus of GRP78 and other resident ER proteins including glucose regulated protein 94 (GRP 94) and protein disulfide isomerase (PDI). The presence of carboxy terminal KDEL appears to be necessary for retention and appears to be sufficient to reduce the secretion of proteins from the ER. This retention is reported to be mediated by a KDEL receptor.

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