bs-1219R **[Primary Antibody]**

GRP78 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 3309 **SWISS:** P11021

Target: GRP78

Immunogen: KLH conjugated synthetic peptide derived from human GRP78: 251-360/654.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

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.

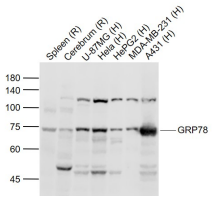
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

Reactivity: Human, Rat
(predicted: Mouse, Pig)

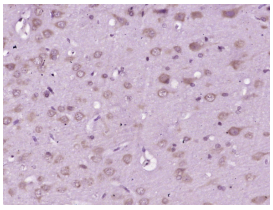
Predicted MW.: 78 kDa

Subcellular Location: Cytoplasm

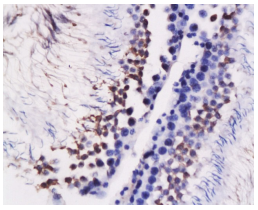
VALIDATION IMAGES



Sample: Lane 1: Spleen (Rat) Lysate at 40 ug Lane 2: Cerebrum (Rat) Lysate at 40 ug Lane 3: U-87MG (Human) Cell Lysate at 30 ug Lane 4: Hela (Human) Cell Lysate at 30 ug Lane 5: HepG2 (Human) Cell Lysate at 30 ug Lane 6: MDA-MB-231 (Human) Cell Lysate at 30 ug Lane 7: A431 (Human) Cell Lysate at 30 ug Primary: Anti-GRP78 (bs-1219R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 78 kD Observed band size: 74 kD



Paraformaldehyde-fixed, paraffin embedded (rat brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (GRP78) Polyclonal Antibody, Unconjugated (bs-1219R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Tissue/cell: rat testis tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-GRP78 Polyclonal Antibody, Unconjugated(bs-1219R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

SELECTED CITATIONS

- **[IF=7.9]** Tian-Bao Wang. et al. Rosmarinic acid mitigates acrylamide induced neurotoxicity via suppressing endoplasmic reticulum stress and inflammation in mouse hippocampus. PHYTOMEDICINE. 2024 Apr;126:155448 WB ;Mouse. 38394736

- **[IF=7.675]** Reziyamu Wufuer. et al. Distinct Roles of Nrf1 and Nrf2 in Monitoring the Reductive Stress Response to Dithiothreitol (DTT). ANTIOXIDANTS-BASEL. 2022 Aug;11(8):1535 WB ;Human. 36009254
- **[IF=7.1]** Tingting Wang. et al. Endoplasmic reticulum stress-autophagy axis is involved in copper-induced ovarian ferroptosis. FREE RADICAL BIO MED. 2025 Apr;: WB ;Mouse. 40194638
- **[IF=7.1]** Reziyamu Wufuer. et al.Distinct mechanisms by which Nrf1 and Nrf2 as drug targets contribute to the anticancer efficacy of cisplatin on hepatoma cells.FREE RADICAL BIOLOGY AND MEDICINE.2024 Mar:213:488-511. Western blot ;Human. 38278308
- **[IF=5.96]** Xia, Dan, et al. "Knockout of MARCH2 inhibits the growth of HCT116 colon cancer cells by inducing endoplasmic reticulum stress." Cell Death and Disease 8.7 (2017). WB ;="Human". 28749466