

Product datasheet for **AP06149PU-S**

GRP78 (HSPA5) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IF, IHC, WB
Recommended Dilution:	Western blot: 1/500-1/1000. Immunofluorescence: 1/50-1/200. Immunohistochemistry on Paraffin Sections: 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 611-660 of Human GRP78.
Specificity:	This antibody detects endogenous levels of GRP78 protein. (region surrounding Pro641)
Formulation:	Phosphate buffered saline (PBS), pH~7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE) Preservative: 0.05% Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
Predicted Protein Size:	~ 78 kDa
Gene Name:	heat shock protein family A (Hsp70) member 5
Database Link:	Entrez Gene 3309 Human P11021



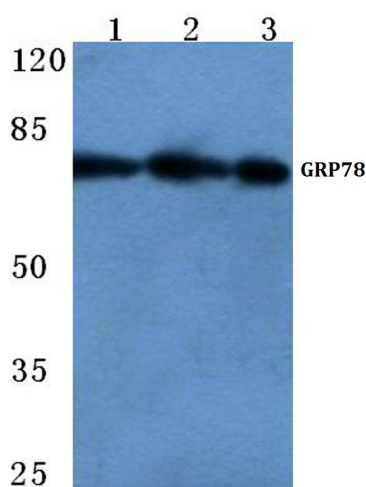
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Background:

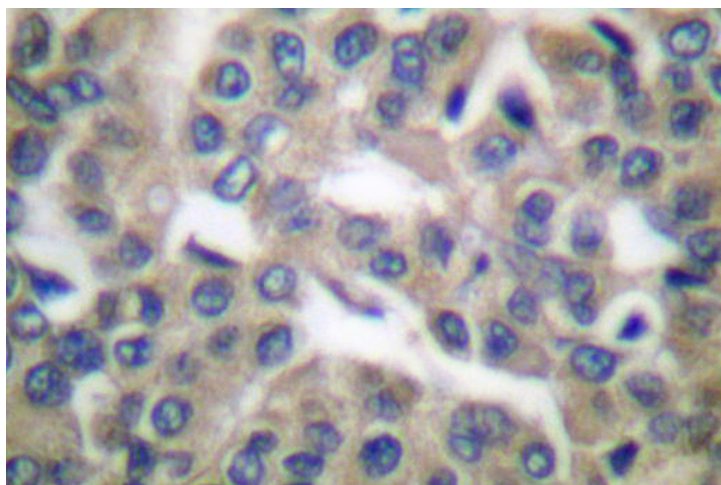
The HSP 70 family comprises four highly conserved proteins, HSP 70, HSC 70, GRP 75 and GRP 78, which serve a variety of roles. They act as molecular chaperones facilitating the assembly of multi-protein complexes, participate in the translocation of polypeptides across cell membranes and to the nucleus, and aid in the proper folding of nascent polypeptide chains. HSC 70, GRP 75 and GRP 78 are constitutively expressed in primate cells. HSP 70 expression is strongly induced in response to heat stress. HSP 70 and HSC 70, which are found in both the cytosol and nucleus of mammalian cells, play key roles in the cytosolic endoplasmic reticulum and mitochondrial import machinery. They are involved in chaperoning 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. Research indicates that members of the HSP 70 family may act as force-generating motors, relying on the hydrolysis of ATP for their activity.

Synonyms:

78 kDa glucose-regulated protein, Heat shock 70 kDa protein 5, BiP

Product images:

Western blot (WB) analysis of GRP78 antibody at 1/500 dilution Lane 1: MCF-7 cell lysate Lane 2: Mouse liver tissue lysate Lane 3: Rat liver tissue lysate



Immunohistochemistry (IHC) analyzes of GRP78 antibody in paraffin-embedded human breast carcinoma tissue.