

## Product datasheet for **AP06148PU-S**

### Grp75 (HSPA9) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, WB
Recommended Dilution:	<b>Western blot:</b> 1/500-1/1000. <b>Immunohistochemistry:</b> 1/50-1/200. <b>Immunofluorescence:</b> 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids C-terminus of Human GRP75.
Specificity:	This antibody detects endogenous levels of GRP75/HSPA9 protein.
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:	~ 90 kDa
Gene Name:	heat shock protein family A (Hsp70) member 9
Database Link:	<a href="#">Entrez Gene 3313 Human P38646</a>



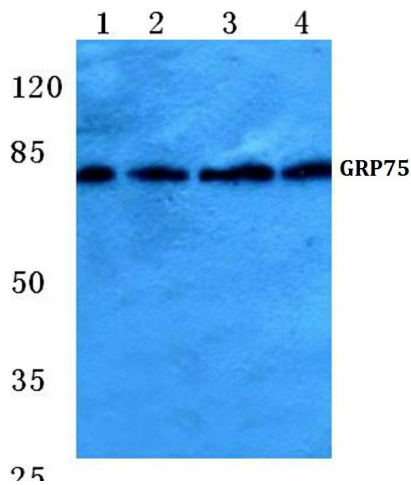
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**Background:**

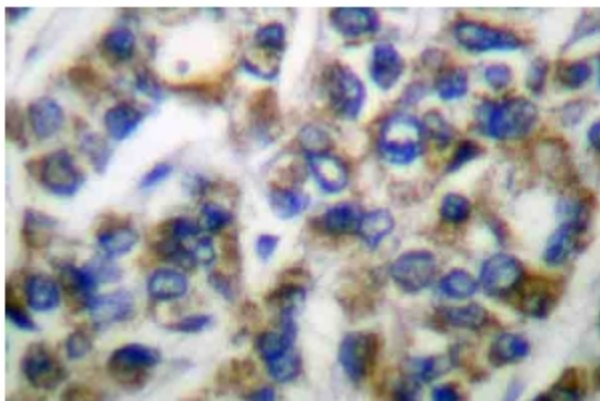
The HSP 70 family comprises four highly conserved proteins, HSP 70, HSC 70, GRP 75 and GRP 78, which serve a variety of roles. They act as molecular chaperones facilitating the assembly of multi-protein complexes, participate in the translocation of polypeptides across cell membranes and to the nucleus, 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 75 and GRP 78 are unresponsive to heat stress and are induced by glucose deprivation. GRP 75 expression is restricted to the mitochondrial matrix and aids in the translocation and folding of nascent polypeptide chains of both nuclear and mitochondrial origin. 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:**

Heat shock 70 kDa protein 9, Peptide-binding protein 74, PBP74, MOT, HSPA9B, Stress-70 protein, Mortalin, 75 kDa glucose-regulated protein

**Product images:**

Western blot (WB) analysis of GRP75 antibody at 1/500 dilution Lane 1:HEK293T cell lysate Lane 2:sp2/0 cell lysate Lane 3:Mouse brain tissue lysate Lane 4:Rat brain tissue lysate



Immunohistochemistry (IHC) analysis of GRP75/HSPA9 antibody in paraffin-embedded human breast carcinoma tissue.