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Product datasheet for AP01275PU-M

HSP70-1A (HSPA1A) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, WB
Recommended Dilution:	**Western Blot:** 1/500-1/1000. **Immunohistochemistry on Paraffin Sections:** 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 20-70 of Human HSP 70.
Specificity:	This antibody detects endogenous levels of HSP70 protein. (region surrounding Phe245)
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:	~70 kDa
Gene Name:	heat shock protein family A (Hsp70) member 1A
Database Link:	Entrez Gene 24472 RatEntrez Gene 193740 MouseEntrez Gene 3303 Human P0DMV8

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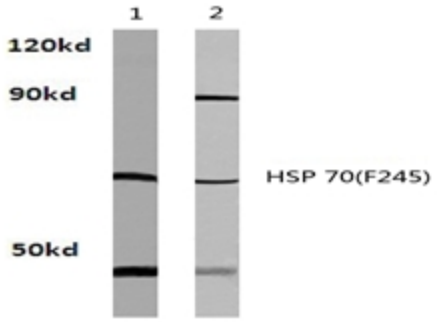
Background: The HSP 70 family is composed of four highly conserved proteins: HSP 70, HSC 70, GRP 75 and GRP 78. These proteins serve a variety of roles: they act as molecular chaperones facilitating the assembly of multi-protein complexes, participate in the translocation of polypeptides across cell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

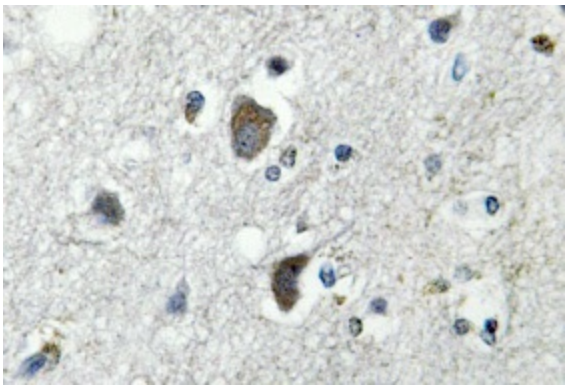
Synonyms: HSP70.1, HSP70-1/HSP70-2, HSPA1A, HSPA1B, HSPA1

Protein Pathways: Antigen processing and presentation, Endocytosis, MAPK signaling pathway, Prion diseases, Spliceosome

Product images:



Western blot (WB) analysis of HSP70 antibody in extracts from PC12 and Raw264.7 cells at 1/500 dilution. Lane 1: PC12 whole cell lysate. Lane 2: Raw264.7 whole cell lysate.



Immunohistochemistry (IHC) analyzes of HSP70 antibody in paraffin-embedded human brain tissue.