

## Product datasheet for **AP00036PU-N**

### **HSP70-1A (HSPA1A) Rabbit Polyclonal Antibody**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Applications:</b>	WB
<b>Recommended Dilution:</b>	Western Blot: 1-2 µg/ml.
<b>Reactivity:</b>	Bovine, Hamster, Human, Monkey, Porcine
<b>Host:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>Immunogen:</b>	Synthetic peptide surrounding amino acid 559 of human Hsp70
<b>Specificity:</b>	The antibody is specific for the inducible form of Hsp70 (Hsp72) and does not cross-react with the constitutive Hsc70 (Hsc73).
<b>Formulation:</b>	PBS, pH 7.2, containing 50% glycerol, 1% BSA, 0.02% sodium azide State: Aff - Purified State: Liquid purified Ig
<b>Concentration:</b>	lot specific
<b>Purification:</b>	Affinity purified
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store the antibody undiluted at -20°C or for long term storage (in aliquots) at -70°C. Avoid repeated freezing and thawing.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>Gene Name:</b>	heat shock protein family A (Hsp70) member 1A
<b>Database Link:</b>	<a href="#">Entrez Gene 3303 Human</a> <a href="#">P0DMV8</a>



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**Background:**

Hsp70, one class of stress proteins, is comprised of multiple members, all of which bind ATP in vitro, but are localized within different intracellular compartments. These include: a) the constitutive Hsc70 (or cognate) present within the cytosol/nucleus; b) the highly stress-inducible Hsp70 present within the cytosol/ nucleus/nucleolus; c) the constitutive glucose regulated 78 kDa (or BiP) protein present within the lumen of the endoplasmic reticulum; and d) the glucose regulated 75 kDa protein present within the mitochondria. Hsp70 is typically not expressed in the cell under normal growth conditions, but is expressed at high levels in the cell experiencing stress. Consequently, detection of Hsp70 using an antibody specific for the inducible form is quite useful in ascertaining whether a stress response has occurred in the cell. It should be noted, however, that there is a constitutive level of Hsp70 expression in some cell types such as primates, e.g., human and monkey. Nevertheless increased expression of Hsp70 is observed in such cells following stress.

**Synonyms:**

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

**Protein Pathways:**

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