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HSP40 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5253

Product Information

Application	WB
Primary Accession	P25685
Other Accession	NP_006136
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	38044
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	3337
Antigen Region	Full length
Other Names	DNAJB1; DNAJ1; HDJ1; HSPF1; DnaJ homolog subfamily B member 1; DnaJ protein homolog 1; Heat shock 40 kDa protein 1; Human DnaJ protein 1
Dilution	WB~~ 1:1000
Target/Specificity	This HSP40 antibody is generated from rabbits immunized with a recombinant protein encoding full length of human HSP40.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HSP40 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DNAJB1
Synonyms	DNAJ1, HDJ1, HSPF1
Function	Interacts with HSP70 and can stimulate its ATPase activity. Acts also with

	TTC1 as a chaperone adapter that regulates HSP70- dependent folding process by interacting with the HSP70 amino terminal region (PubMed:14503850). Stimulates the association between HSC70 and HIP. Negatively regulates heat shock-induced HSF1 transcriptional activity during the attenuation and recovery phase period of the heat shock response (PubMed:9499401). Stimulates ATP hydrolysis and the folding of unfolded proteins mediated by HSPA1A/B (in vitro) (PubMed:24318877).
Cellular Location	Cytoplasm. Nucleus. Nucleus, nucleolus. Note=Translocates rapidly from the cytoplasm to the nucleus, and especially to the nucleoli, upon heat shock

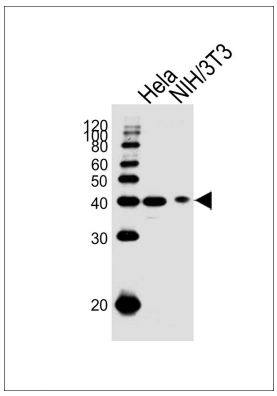
Background

DnaJ (Hsp40) belongs to the DnaJ-class of molecular chaperones with a C-terminal Zn finger domain. HSP40 (DnaJ) together with DnaK and GrpE form a molecular chaperone that is involved in formation of protein complexes, protein folding, prevention of protein aggregation, and protein turnover and export. Several human neurodegenerative diseases involve the expansion of a polyglutamine within the disease proteins. Molecular chaperones such as HSP40 complexes can modulate polyglutamine pathogenesis In transgenic Drosophila disease models of Machado-Joseph disease and Huntington disease Hdj1, the Drosophila homolog to human HSP40, demonstrates substrate specificity for polyglutamine proteins suppression in combination with other molecular chapterones of neurotoxicity, and altered solubility of mutant polyglutamine proteins.

References

Ohtsuka, K., et al., Cell Stress Chaperones 5(2):98-112 (2000). Hata, M., et al., Biochim. Biophys. Acta 1397(1):43-55 (1998). Hata, M., et al., Genomics 38(3):446-449 (1996). Ohtsuka, K., Biochem. Biophys. Res. Commun. 197(1):235-240 (1993).

Images



Western blot analysis of lysates from Hela,mouse NIH/3T3 cell line (from left to right), using HSP40 Antibody(Cat. #AW5253). AW5253 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.