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(DANRE) hspa8 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # Azb21567b

Product Information

Application	WB, E
Primary Accession	Q90473
Reactivity	Human, Zebrafish, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB49652
Calculated MW	70974

Additional Information

Other Names	Heat shock cognate 71 kDa protein, Heat shock 70 kDa protein 8, hspa8, hsc70
Target/Specificity	This DANRE hspa8 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 458-490 amino acids from the C-terminal region of DANRE hspa8.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	(DANRE) hspa8 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	hspa8 {ECO:0000250|UniProtKB:P11142}
Function	Molecular chaperone implicated in a wide variety of cellular processes, including protection of the proteome from stress, folding and transport of newly synthesized polypeptides, chaperone-mediated autophagy, activation of proteolysis of misfolded proteins and the formation and dissociation of protein complexes. Plays a pivotal role in the protein quality control system, ensuring the correct folding of proteins, the re-folding of misfolded proteins and controlling the targeting of proteins for subsequent degradation. This is

achieved through cycles of ATP binding, ATP hydrolysis and ADP release, mediated by co-chaperones. The affinity of HSP70 for polypeptides is regulated by its nucleotide bound state. In the ATP-bound form, it has a low affinity for substrate proteins. However, upon hydrolysis of the ATP to ADP, it undergoes a conformational change that increases its affinity for substrate proteins. HSP70 goes through repeated cycles of ATP hydrolysis and nucleotide exchange, which permits cycles of substrate binding and release. Substrate recognition component in chaperone- mediated autophagy (CMA), a selective protein degradation process that mediates degradation of proteins with a -KFERQ motif: HSPA8/HSC70 specifically recognizes and binds cytosolic proteins bearing a -KFERQ motif and promotes their recruitment to the surface of the lysosome where they bind to lysosomal protein LAMP2. KFERQ motif-containing proteins are eventually transported into the lysosomal lumen where they are degraded (By similarity). May play a role in uncoating of clathrin- coated vesicles (By similarity).

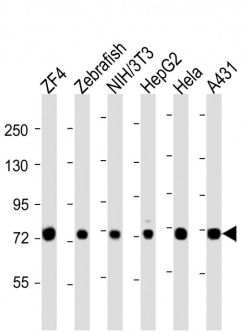
Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:P11142}. Nucleus, nucleolus {ECO:0000250|UniProtKB:P11142}. Cell membrane {ECO:0000250|UniProtKB:P11142}. Lysosome membrane {ECO:0000250|UniProtKB:P11142}; Peripheral membrane protein {ECO:0000250|UniProtKB:P11142}; Cytoplasmic side {ECO:0000250|UniProtKB:P11142}. Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs. Translocates rapidly from the cytoplasm to the nuclei, and especially to the nucleoli, upon heat shock. {ECO:0000250|UniProtKB:P11142}

References

Graser R.T.,et al.Genetica 98:273-276(1996).

Images



All lanes : Anti-hspa8 Antibody (C-term) at 1:2000 dilution Lane 1: ZF4 whole cell lysates Lane 2: Zebrafish lysates Lane 3: NIH/3T3 whole cell lysates Lane 4: HepG2 whole cell lysates Lane 5: Hela whole cell lysates Lane 6: A431 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 71 kDa Blocking/Dilution buffer: 5% NFDM/TBST.