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(DANRE) hspa8 Blocking Peptide (C-term)

Synthetic peptide
Catalog # BP21747b

Specification

(DANRE) hspa8 Blocking Peptide (C-term) - Product Information

Primary Accession Q90473

(DANRE) hspa8 Blocking Peptide (C-term) - Additional Information

Other Names
Heat shock cognate 71 kDa protein, Heat shock 70 kDa protein 8, hspa8, hsc70

Target/Specificity
The synthetic peptide sequence is selected from aa 548-562 of HUMAN hspa8

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

(DANRE) hspa8 Blocking Peptide (C-term) - 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}

(DANRE) hspa8 Blocking Peptide (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

(DANRE) hspa8 Blocking Peptide (C-term) - Images

(DANRE) hspa8 Blocking Peptide (C-term) - References

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