10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

HSF4 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1700a

Specification

HSF4 Antibody - Product Information

Application	**E, WB, FC**
Primary Accession	Q9ULV5
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**53kDa KDa**

Description
Heat-shock transcription factors (HSFs) activate heat-shock response genes under conditions of heat or other stresses. HSF4 lacks the carboxyl-terminal hydrophobic repeat which is shared among all vertebrate HSFs and has been suggested to be involved in the negative regulation of DNA binding activity. Two alternatively spliced transcripts encoding distinct isoforms and possessing different transcriptional activity have been described.

Immunogen
Purified recombinant fragment of human HSF4 expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

HSF4 Antibody - Additional Information

Gene ID 3299

Other Names
Heat shock factor protein 4, HSF 4, hHSF4, Heat shock transcription factor 4, HSTF 4, HSF4

Dilution
E~~1/10000
WB~~1/500 - 1/2000
FC~~1/200 - 1/400

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
HSF4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

HSF4 Antibody - Protein Information

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Name HSF4

Function
Heat-shock transcription factor that specifically binds heat shock promoter elements (HSE) (PubMed:22587838, PubMed:23507146). Required for denucleation and organelle rupture and degradation that occur during eye lens terminal differentiation, when fiber cells that compose the lens degrade all membrane-bound organelles in order to provide lens with transparency to allow the passage of light (By similarity). In this process, may regulate denucleation of lens fiber cells in part by activating DNASE2B transcription (By similarity). May be involved in DNA repair through the transcriptional regulation of RAD51 (PubMed:22587838). May up-regulate p53/TP53 protein in eye lens fiber cells, possibly through protein stabilization (PubMed:28981088). In the eye lens, controls the expression of alpha-crystallin B chain/CRYAB and consequently may be involved in the regulation of lysosomal acidification (By similarity).

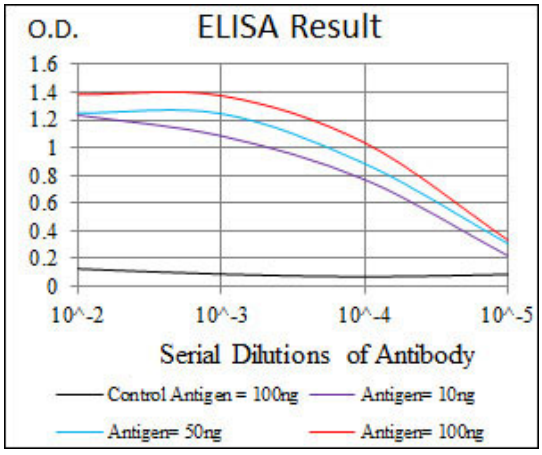
Cellular Location
Nucleus.

Tissue Location
Expressed in heart, skeletal muscle, eye and brain, and at much lower levels in some other tissues

HSF4 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture



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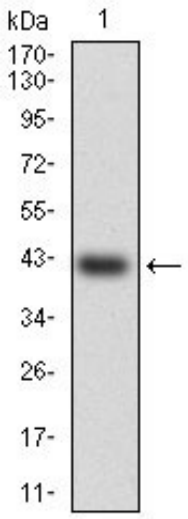


Figure 1: Western blot analysis using HSF4 mAb against human HSF4 (AA: 245-411) recombinant protein. (Expected MW is 42.9 kDa)

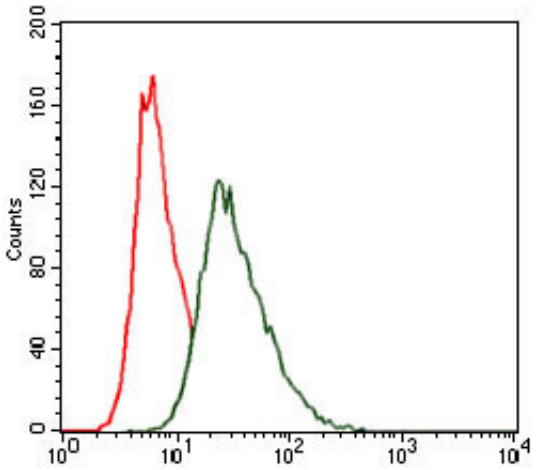


Figure 2: Flow cytometric analysis of HeLa cells using HSF4 mouse mAb (green) and negative control (red).

HSF4 Antibody - References

Xi Bao Yu Fen Zi Mian Yi Xue Za Zhi. 2010 Apr;26(4):325-8. Am J Hum Genet. 2009 Nov;85(5):628-42.