HSF4 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	HSF4, Monoclonal Antibody
Full Product Name	HSF4 (Heat Shock Factor Protein 4, HSF 4, hHSF4, Heat Shock Transcription Factor 4, HSTF 4) (MaxLight 405)
Product Gene Name	anti-HSF4 antibody
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	3G3
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight405.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human HSF4.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight405 conjugates are sensitive to light. For maximu recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	50kDa
OMIM	phenotype 602438
3D Structure	ModBase 3D Structure for Q9ULV5
Immunogen	Partial recombinant corresponding to aa121-220 from human HSF4 (NP_001529) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	KVPALRGDDGRWRPEDLGRLLGEVQALRGVQESTEARLRELRQQNEILWREVVTLRQSHGQQHRVIGKLIQCLFGPLQAGPSNAGGKRKLSLMLDEGS
Conjugate	MaxLight405
Product Categories/Family for anti-HSF4 antibody	Antibodies; Transcription Factors
Applications Tested/Suitable for anti-HSF4 antibody	FLISA, Western Blot (WB)
Application Notes for anti-HSF4 antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-HSF4 antibody	Heat-shock transcription factors (HSFs) activate heat-shock response genes under conditions of heat or other stresses. HSF4 lacks the carboxyl-termi hydrophobic repeat which is shared among all vertebrate HSFs and has been suggested to be involved in the negative regulation of DNA binding activi Two alternatively spliced transcripts encoding distinct isoforms and possessing different transcriptional activity have been described.

Other Notes	Small volumes of anti-HSF4 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for HSF4 purchase	MBS6190624 is an antibody targeting HSF4. Also known as HSF4 (Heat Shock Factor Protein 4, HSF 4, hHSF4, Heat Shock Transcription Factor 4, HSTF 4) (MaxLight 405). Reactive in Human. Host: Mouse.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HSF4. It may not necessarily be applicable to this product.

NCBI GI #	100913211
NCBI GeneID	3299
NCBI Accession #	NP_001529
UniProt Primary Accession #	Q9ULV5
UniProt Related Accession #	Q9ULV5
GenBank Nucleotide #	NM_001538
NCBI Official Full Name	heat shock factor protein 4 isoform a
NCBI Official Synonym Full Names	heat shock transcription factor 4
NCBI Official Symbol	HSF4
NCBI Official Synonym Symbols	CTM; CTRCT5
UniProt Protein Name	Heat shock factor protein 4
UniProt Synonym Protein Names	Heat shock transcription factor 4; HSTF 4
Protein Family	Heat shock factor protein
UniProt Gene Name	HSF4
UniProt Synonym Gene Names	HSF 4; hHSF4; HSTF 4
UniProt Entry Name	HSF4_HUMAN
NCBI Protein Information	heat shock factor protein 4

UniProt Comments for HSF4	HSF4: DNA-binding protein that specifically binds heat shock promoter elements (HSE). Isoform HSF4A represses transcription while the isoform HSF4B activates transcription. Defects in HSF4 are the cause of cataract, zonular (CZ). A form of zonular cataract. Zonular or lamellar cataracts are opacities, broad or narrow, usually consisting of powdery white dots affecting only certain layers or zones between the cortex and nucleus of an otherwise clear lens. The opacity may be so dense as to render the entire central region of the lens completely opaque, or so translucent that vision is hardly if at all impeded. Zonular cataracts generally do not involve the embryonic nucleus, though sometimes they involve the fetal nucleus. Usually sharply separated from a clear cortex outside them, they may have projections from their outer edges known as riders or spokes. Defects in HSF4 are the cause of cataract Marner type (CAM). A form of cataract with variable and progressive opacities. Affected individuals present with zonular cataract, although some have nuclear, anterior polar, or stellate cataract. Finger malformation is observed in some kindreds. Belongs to the HSF family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Transcription, coactivator/corepressor; DNA-binding; Cell development/differentiation Chromosomal Location of Human Ortholog: 16q21 Cellular Component: nucleoplasm Molecular Function: sequence-specific DNA binding; transcription factor activity; transcription corepressor activity; protein phosphatase binding Biological Process: histone H3-K9 demethylation; camera-type eye development; transcription, DNA-dependent; regulation of transcription, DNA-dependent; positive regulation of cell proliferation; positive regulation of transcription from RNA polymerase II promoter; negative regulation of transcription from RNA polymerase II promoter; positive regulation of cell differentiation; cell development Disease: Cataract 5, Multiple Types
Research Articles on HSF4	**1.** Ectopic UAP56 upregulated HSF4-controlled HSP25 and alpha B-crystallin proteins expression, while knocking down UAP56 by shRNA reversed it.
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