

Datasheet for 200-501-F50**HSF1 Antibody****Overview**

Description:	Anti-HSF1 (RAT) Monoclonal Antibody - 200-501-F50
Item No.:	200-501-F50
Size:	100 µg
Applications:	FC, IHC, IP, WB
Reactivity:	Human, Mouse, Rat, Bovine, Guinea Pig, Hamster, Monkey, Rabbit
Host Species:	Rat

Product Details**Background:**

HSF1, or heat shock factor 1, belongs to a family of Heat Shock transcription factors that activate the transcription of genes encoding products required for protein folding, processing, targeting, degradation, and function. The up-regulation of HSP (heat shock proteins) expression by stressors is achieved at the level of transcription through a heat shock element (HSE) and a transcription factor (HSF). Most HSFs have highly conserved amino acid sequences. On all HSFs there is a DNA binding domain at the N-terminus. Hydrophobic repeats located adjacent to this binding domain are essential for the formation of active trimers. Towards the C-terminal region another short hydrophobic repeat exists, and is thought to be necessary for suppression of trimerization. There are two main heat shock factors, 1 and 2. Mouse HSF1 exists as two isoforms, however in higher eukaryotes HSF1 is found in a diffuse cytoplasmic and nuclear distribution in un-stressed cells. Once exposed to a multitude of stressors, it localizes to discrete nuclear granules within seconds. As it recovers from stress, HSF1 dissipates from these granules to a diffuse nucleoplasmic distribution. HSF2 on the other hand is similar to mouse HSF1, as it exists as two isoforms, the alpha form being more transcriptionally active than the smaller beta form. Various experiments have suggested that HSF2 may have roles in differentiation and development.

Synonyms:	HSTF1, Heat shock factor protein 1, Heat shock transcription factor 1, HSF 1
Host Species:	Rat
Clonality:	Monoclonal
Clone ID:	10H8
Format:	IgG1

Target Details

Gene Name:	HSF1
Reactivity:	Human, Mouse, Rat, Bovine, Guinea Pig, Hamster, Monkey, Rabbit
Immunogen Type:	Recombinant Protein
Immunogen:	HSF1 Antibody was produced in rat by repeated immunizations with purified recombinant HSF1 protein.
Purity/Specificity:	Anti-HSF1 Antibody was purified by Protein G chromatography. A BLAST analysis was used to suggest cross-reactivity with HSF1 from Human, Mouse, Rat, Bovine, Guinea Pig, Hamster, Monkey, and Rabbit based on 100% homology with the immunizing sequence. Cross-reactivity with HSF1 from other sources has not been determined. Heat Shock research.
Relevant Links:	• NCBI - NP_005517.1 • GeneID - 3297 • UniProtKB - Q00613

Application Details

Tested Applications:	FC, IHC, IP, WB
Application Note:	Anti-HSF1 Antibody is tested for WB, IP, IF microscopy, and IHC-P. Expect a band approximately ~85kDa protein in unstressed cell lysates, and an ~95kDa protein in heat shocked cell lysates, corresponding to the molecular mass of inactive and active forms of HSF1 on SDS PAGE immunoblots. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:200
EMSA:	User Optimized
IF:	10ug/ml
IP:	User Optimized
WB:	1 µg/mL

Formulation

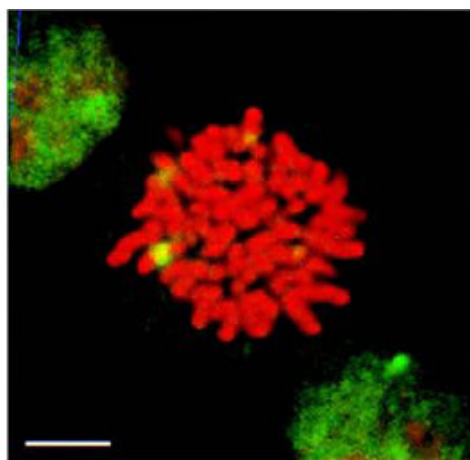
Physical State:	Liquid (sterile filtered)
Concentration:	1mg/mL by UV absorbance at 280 nm

Buffer:	1X PBS, pH 7.4
Preservative:	0.09% (w/v) Sodium Azide
Stabilizer:	50% (v/v) Glycerol

Shipping & Handling

Shipping Condition:	Wet Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Immunofluorescence Microscopy

Immunofluorescence of rat anti-HSF1 antibody. Tissue: mitotic HeLa cells. Antigen retrieval: Heat Shock. Primary Antibody: HSF1 antibody at 10ug/ml for 1h at RT. Secondary antibody: Fluorescein rat secondary at 1:10,000 for 45 min at RT. Localization: nuclear. Staining: HSF1 granules present as (green) fluorescent signal.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.