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Datasheet for 200-505-W89

HSF1 Antibody Alkaline Phosphatase

Overview

Description:	Anti-HSF1 (RAT) Monoclonal Antibody Alkaline Phosphatase Conjugated - 200-505-W89
Item No.:	200-505-W89
Size:	100 µg
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 (2). 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) (3, 4, 5). 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 (6). 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 (7, 8). Various experiments have suggested that HFS2 may have roles in differentiation and development (9, 10, 11). Anti-HSF1 Antibody is ideal for research in Genetics, Transcription, Cell Signaling and pathways including ERK and MAPK.
Synonyms:	HSTF1, Heat shock factor protein 1, Heat shock transcription factor 1, HSF 1
Host Species:	Rat
Conjugate:	Alkaline Phosphatase (AP)
Clonality:	Monoclonal
Clone ID:	4B4
Format:	IgG1

Target Details

Gene Name:	Hsf1
Reactivity:	Human, Mouse, Rat, Bovine, Guinea Pig, Hamster, Monkey, Rabbit
Immunogen Type:	Recombinant Protein
Immunogen:	Anti-HSF1 Antibody was produced by repeated immunization of rats with a purified recombinant mouse HSF1 protein, epitope mapping to amino acids 425-439.
Purity/Specificity:	Anti-HSF1 Antibody was purified from concentrated tissue culture supernate by Protein G chromatography.
Relevant Links:	• UniProtKB - P38532 • GeneID - 15499 • NCBI - NP_058761.1

Application Details

Application Note:	Anti-HSF1 Alkaline Phosphatase Conjugated Antibody is suitable for Western Blots, Immunoprecipitation, ELISA, Gel Mobility Shift Assay and Immunocytochemistry. Expect a band approximately ~85kDa protein in unstressed cell lysates, and a 95 kDa protein in heat shocked cell lysates. 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:	1:10,000
EMSA:	User Optimized
IP:	User Optimized
WB:	1:1000

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.1% (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.

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.