Datasheet for ABIN2484628

anti-HSF1 antibody (AA 378-395) (FITC)

6 Images

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Overview

Quantity:	100 µg
Target:	HSF1
Binding Specificity:	AA 378-395
Reactivity:	Mouse
Host:	Rat
Clonality:	Monoclonal
Conjugate:	This HSF1 antibody is conjugated to FITC
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF), Gel Shift (GS), Immunocytochemistry (ICC)

Product Details

Immunogen:	Purified recombinant mouse HSF1 protein, with epitope mapping to amino acids 378-395
Clone:	10H8
Isotype:	IgG1
Specificity:	Detects ~85 kDa (unstressed cell lysates), and~95 kDa (heat shocked cell lysates).
Cross-Reactivity:	Cow, Guinea Pig, Hamster, Human, Monkey, Mouse, Rabbit, Rat
Purification:	Protein G Purified

Target Details

Target:	HSF1

Target Details

Alternative Name:	HSF1 (HSF1 Products)
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).
Gene ID:	15499
NCBI Accession:	NP_032322
UniProt:	P38532

Application Details

Application Notes:	• WB (1:1000) • IHC (1:1000) • ICC/IF (1:200) • optimal dilutions for assays should be determined by the user.
Comment:	1 µg/ml of ABIN2484628 was sufficient for detection of HSF1 in 20 µg of heat shocked HeLa cell lysate by ECL immunoblot analysis using Goat anti-rat IgG: HRP as the secondary antibody
Restrictions:	For Research Use only

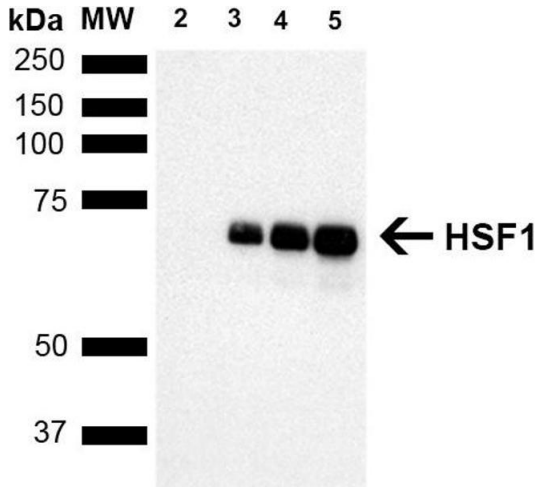
Handling

Format:	Liquid
Concentration:	1 mg/mL

Handling

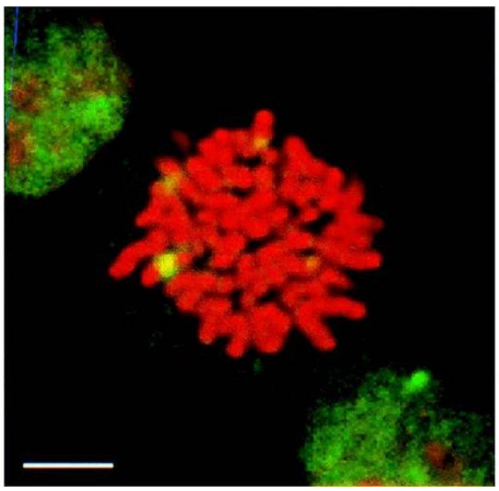
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Conjugated antibodies should be stored at 4°C

Images



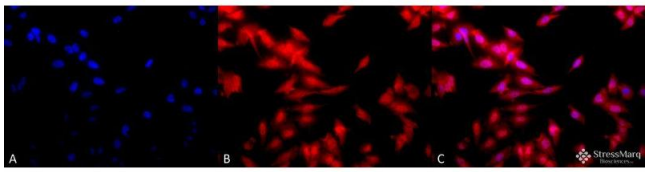
Western Blotting

Image 1. Western Blot analysis of Human Breast adenocarcinoma cell line (MCF7) showing detection of ~65 kDa HSF1 protein using Rat Anti-HSF1 Monoclonal Antibody, Clone 10H8 (ABIN2484628). Lane 1: MW ladder. Lane 2: HSF1 null lysate prepared from mouse embryonic fibroblasts. Lane 3: MCF7 lysate (5 µg). Lane 4: MCF7 lysate (10 µg). Lane 5: MCF7 lysate (20 µg). Block: 1.5 % BSA for 30 minutes at RT. Primary Antibody: Rat Anti-HSF1 Monoclonal Antibody (ABIN2484628) at 1:1000 for 2 hours at RT. Secondary Antibody: Goat Anti-Rat IgG: HRP for 1 hour at RT. Predicted/Observed Size: ~65 kDa. Courtesy of: Dr. Sandro Santagata, Harvard Medical School.



Immunofluorescence (fixed cells)

Image 2. Immunocytochemistry/Immunofluorescence analysis using Rat Anti-HSF1 Monoclonal Antibody, Clone 10H8 . Tissue: Heat Shocked mitotic HeLa cells. Species: Human. Primary Antibody: Rat Anti-HSF1 Monoclonal Antibody at 1:1000. Courtesy of: Morimoto Lab, Northwestern University, USA.



Immunofluorescence (fixed cells)

Image 3. Immunocytochemistry/Immunofluorescence analysis using Rat Anti-HSF1 Monoclonal Antibody, Clone 10H8 . Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rat Anti-HSF1 Monoclonal Antibody at 1:100 for 12 hours at 4°C. Secondary Antibody: APC Goat Anti-Rat (red) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Diffuse nuclear and cytoplasmic staining. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-HSF1 Antibody. (C) Composite.

Please check the product details page for more images. Overall 6 images are available for ABIN2484628.