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Anti-HSF2 Antibody [3E2]

Rat Anti-Mouse HSF2 Monoclonal IgG
Catalog No. SMC-119



Discovery through partnership | Excellence through quality

Overview

Product Name

HSF2 Antibody

Description

Rat Anti-Mouse HSF2 Monoclonal IgG

Species Reactivity

Dog, Human, Monkey, Mouse, Rat, Bovine, Guinea Pig (*Cavia porcellus*), Hamster, Pig, Rabbit, Sheep

Applications

WB, ICC/IF

Antibody Dilution

WB (1:250), ICC/IF (1:200); optimal dilutions for assays should be determined by the user.

Host Species

Rat

Immunogen Species

Mouse

Immunogen

Purified recombinant mouse HSF2 protein

Concentration

1 mg/ml

Conjugates

Alkaline Phosphatase, APC, ATTO 390, ATTO 488, ATTO 565, ATTO 594, ATTO 633, ATTO 655, ATTO 680, ATTO 700, Biotin, FITC, HRP, PE/ATTO 594, PerCP, RPE, Streptavidin, Unconjugated

Properties

Storage Buffer

PBS pH7.4, 50% glycerol, 0.09% sodium azide

Storage Temperature

-20°C

Shipping Temperature

Blue Ice or 4°C

Purification

Protein G Purified

Clonality

Monoclonal

Clone Number

3E2

Isotype

IgG

Specificity

Detects ~69kDa.

Cite This Product

Rat Anti-Mouse HSF2 Monoclonal, Clone 3E2 (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SMC-119)

Certificate Of Analysis

4 µg/ml of SMC-119 was sufficient for detection of HSF2 in 20 µg of heat shocked HeLa cell lysate by colorimetric immunoblot analysis using Rabbit anti-rat IgG: AP as the secondary antibody.

Biological Description

Alternative Names

HSTF2 Antibody, Heat shock factor protein 2 Antibody, Heat shock transcription factor 2 Antibody, HSF 2 Antibody

Research Areas

Cancer, Heat Shock, Cell Signaling, Epigenetics

Cellular Localization

Cytoplasm, Nucleus

Accession Number

NP_001129036.1

Gene ID

15500

Swiss Prot

P38533

Scientific Background

HSF2, or heat shock factor 2, 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).

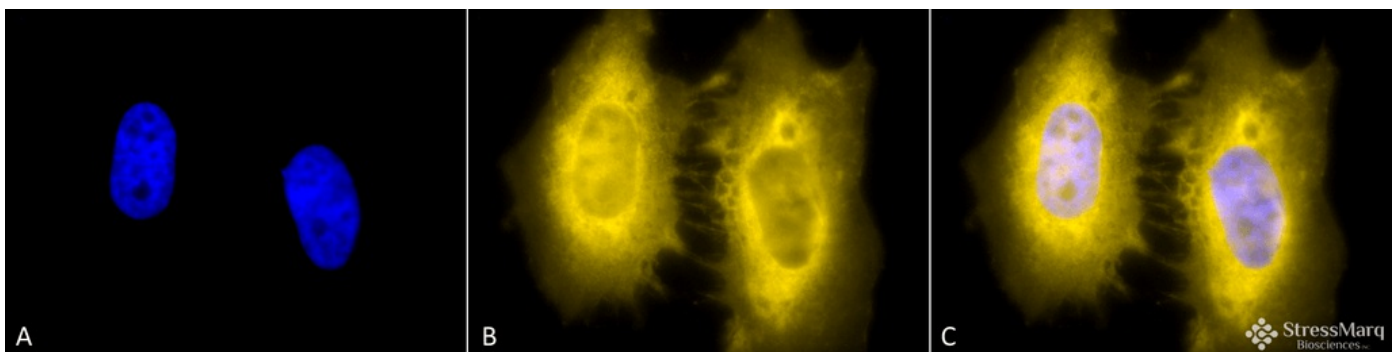
There are two main heat shock factors, 1 and 2. Mouse HSF1 exists as two isoforms, however in higher eukaryotes HSF1 is found in a diffuse cytoplasmic and nuclear distribution in un-stressed cells. Once exposed to a multitude of stressors, it localizes to discrete nuclear granules within seconds. As 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 HSF2 may have roles in differentiation and development (9, 10, 11).

References

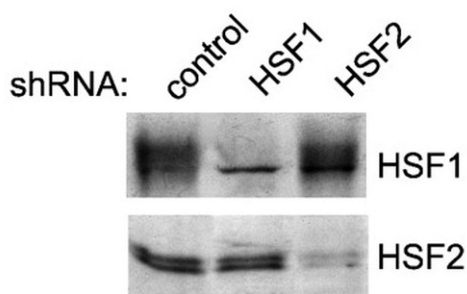
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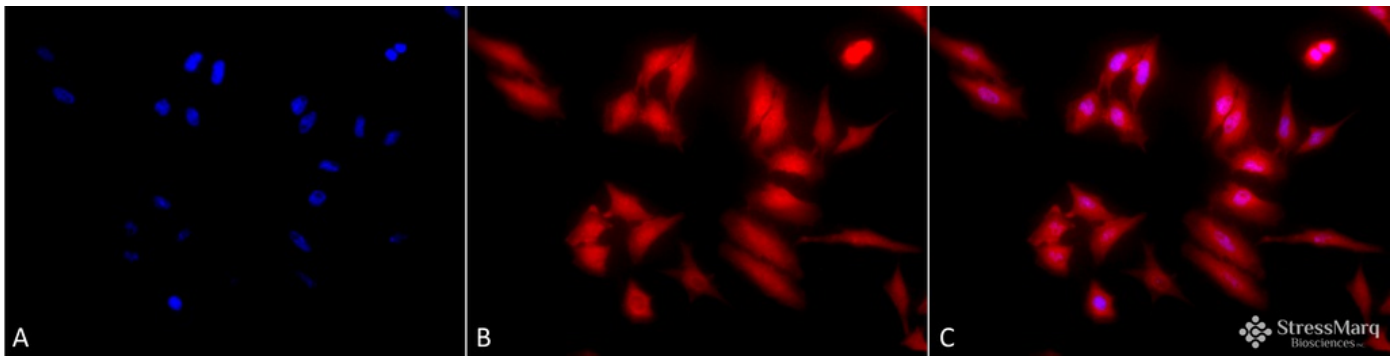
Product Images



Immunocytochemistry/Immunofluorescence analysis using Rat Anti-HSF2 Monoclonal Antibody, Clone 3E2 (SMC-119). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rat Anti-HSF2 Monoclonal Antibody (SMC-119) at 1:100 for 12 hours at 4°C. Secondary Antibody: R-PE Goat Anti-Rat (yellow) 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: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-HSF2 Antibody. (C) Composite.

Western Blot analysis of Human K562 cell lysates showing detection of HSF2 protein using Rat Anti-HSF2 Monoclonal Antibody, Clone 3E2 (SMC-119). Primary Antibody: Rat Anti-HSF2 Monoclonal Antibody (SMC-119) at 1:1000. Cells transiently transfected with control, HSF1 or HSF2 shRNA constructs. Courtesy of: Lea Sistonen, Abo Akademi University, Finland.





Immunocytochemistry/Immunofluorescence analysis using Rat Anti-HSF2 Monoclonal Antibody, Clone 3E2 (SMC-119). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rat Anti-HSF2 Monoclonal Antibody (SMC-119) 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-HSF2 Antibody. (C) Composite.

Product Citations (2)

Other Citations

Biomarker Analysis with Grating Coupled Surface Plasmon Coupled Fluorescence.

Mendoza, A., Dias, J.A., Zeltner, T. and Lawrence, D.A. (2014) J Adv Bio & Biotech. 1(1): 1-22.

PubMed ID: **Reactivity:** Human **Applications:** Antibody Microarray

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Reviews

There are no reviews yet.