10320 Camino Santa Fe, Suite G
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HSF2 Antibody
HSF2 Antibody, Clone 3E2
Catalog # ASM10030

Specification

HSF2 Antibody - Product Information

Application	**WB**
Primary Accession	P38533
Other Accession	NP_001129036.1
Host	**Rat**
Isotype	**IgG**
Reactivity	**Human, Mouse, Rat, Rabbit, Hamster, Monkey, Pig, Bovine, Sheep, Guinea Pig, Dog**
Clonality	**Monoclonal**

Description
Rat Anti-Mouse HSF2 Monoclonal IgG

Target/Specificity
Detects ~69kDa.

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

Immunogen
Purified recombinant mouse HSF2 protein

Purification
Protein G Purified

Storage	**-20ºC**

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

Shipping Temperature	**Blue Ice or 4ºC**

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.

Cellular Localization
Cytoplasm | Nucleus

HSF2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides

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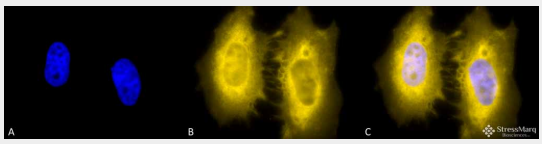
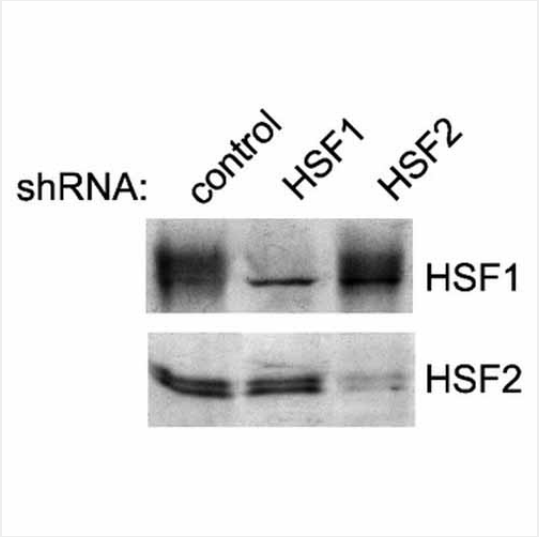
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

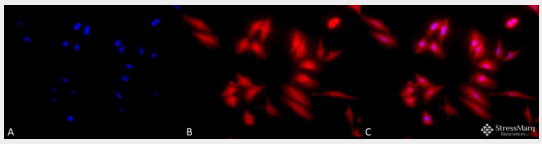
HSF2 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Rat Anti-HSF2 Monoclonal Antibody, Clone 3E2 (ASM10030). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rat Anti-HSF2 Monoclonal Antibody (ASM10030) 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 (ASM10030). Primary Antibody: Rat Anti-HSF2 Monoclonal Antibody (ASM10030) 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 (ASM10030). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rat Anti-HSF2 Monoclonal Antibody (ASM10030) 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.

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HSF2 Antibody - 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 nuceloplasmic distribution. HSF2 on the other hand is similar to mouse HSF1, as it exists as two isoforms, the alpha form being more transciptionally active than the smaller beta form (7, 8). Various experiments have suggested that HFS2 may have roles in differentiation and development (9, 10, 11).

HSF2 Antibody - References

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