Datasheet for ABIN2484631

# anti-HSF1 antibody (AA 378-395) (PerCP)

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 PerCP |
| Application: | Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF), Gel Shift (GS), Immunocytochemistry (ICC) |

## Product Details

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|---|---|
| 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

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|---|---|
| Target: | HSF1 |

## Target Details

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| 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

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| Application Notes: | • WB (1:1000)<br>• IHC (1:1000)<br>• ICC/IF (1:200)<br>• optimal dilutions for assays should be determined by the user. |
| Comment: | 1 µg/ml of ABIN2484631 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

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| Format: | Liquid |
| Concentration: | 1 mg/mL |

## Handling

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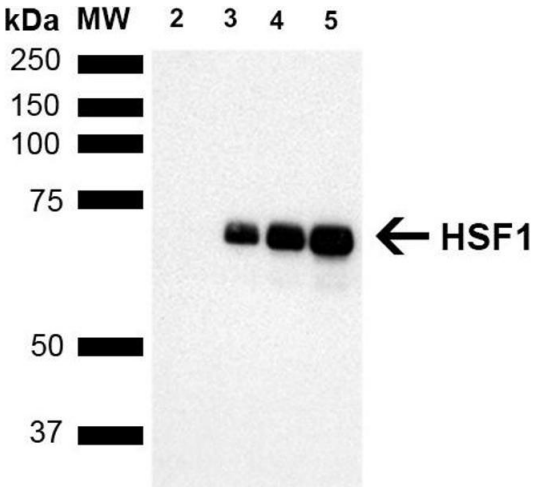
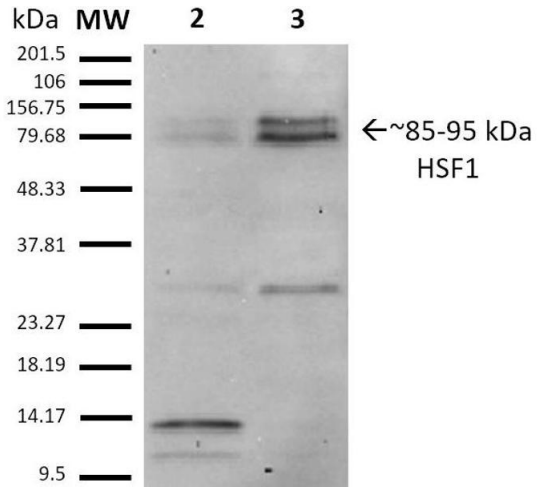
| Buffer: | PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage: | 4 °C |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

## Images



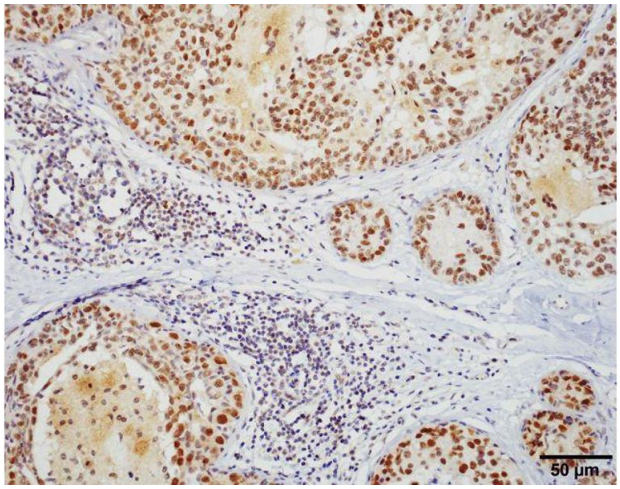

**Western Blotting**

**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 (ABIN2484631). 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 (ABIN2484631) 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.




**Western Blotting**

**Image 2.** Western Blot analysis of Human Heat Shocked HeLa cell lysates showing detection of ~85-95 kDa HSF1 protein using Rat Anti-HSF1 Monoclonal Antibody, Clone 10H8 . Lane 1: MW ladder. Lane 2: HeLa cell lysates (Control). Lane 3: Heat-shocked HeLa cell lysates. Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Rat Anti-HSF1 Monoclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT. Predicted/Observed Size: ~85-95 kDa.




## Immunohistochemistry

**Image 3.** Immunohistochemistry analysis using Rat Anti-HSF1 Monoclonal Antibody, Clone 10H8 . Tissue: Breast carcinoma. Species: Human. Fixation: 10% Formalin Solution for 20 hours at RT. Primary Antibody: Rat Anti-HSF1 Monoclonal Antibody at 1:1000 for 40 min. Secondary Antibody: Dako labeled Polymer HRP Anti-rat IgG, DAB Chromogen (brown) (Dako Envision+ System) for 30 min at RT. Counterstain: Mayer's Hematoxylin (purple/blue) nuclear stain for 1 minute at RT. Localization: Nuclear. Magnification: 100X. Courtesy of: Dr. Sandro Santagata, Harvard Medical School.

Please check the product details page for more images. Overall 6 images are available for ABIN2484631.