**BACKGROUND**

Prokaryotic and eukaryotic cells respond to thermal and chemical stress by inducing a group of genes collectively designated heat shock genes. In eukaryotes, this gene expression is regulated primarily at the transcriptional level. Heat shock transcription factors (HSF, also designated HSF1 and 2) and HSF3 are upregulated by heat shock. Upon activation, HSF1 forms trimers, gains DNA binding activity and is translocated to the nucleus. HSF2 activity is associated with differentiation and development, and, like HSF1, binds DNA as a trimer. Both HSF1 and HSF2 are known to be induced by proteasome inhibitors of the ubiquitin pathway.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: HSF1 (human) mapping to 8q24.3; Hsf1 (mouse) mapping to 15 D3.

**SOURCE**

HSF1 (10H8) is a rat monoclonal antibody raised against recombinant HSF1 of mouse origin, with epitope mapping to amino acids 378-395.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-13516 X, 200 µg/0.1 ml.

HSF1 (10H8) is available conjugated to agarose (sc-13516 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-13516 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-13516 PE), fluorescence (sc-13516 FITC), Alexa Fluor® 488 (sc-13516 AF488), Alexa Fluor® 546 (sc-13516 AF546), Alexa Fluor® 594 (sc-13516 AF594) or Alexa Fluor® 647 (sc-13516 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-13516 AF680) or Alexa Fluor® 790 (sc-13516 AF790), 200 µg/ml, for Near-Infrared (NIR) IF, WB and FCM.

**STORAGE**

Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

HSF1 (10H8) is recommended for detection of HSF1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody to HSF1 siRNA (h): sc-35611, HSF1 siRNA (m): sc-35612, HSF1 siRNA (r): sc-270440, HSF1 shRNA Plasmid (h): sc-35611-SH, HSF1 shRNA Plasmid (m): sc-35612-SH, HSF1 shRNA Plasmid (r): sc-270440-SH, HSF1 shRNA (h) Lentiviral Particles: sc-35611-V, HSF1 shRNA (m) Lentiviral Particles: sc-35612-V and HSF1 shRNA (r) Lentiviral Particles: sc-270440-V.

**DATA**

HSF1 (10H8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HSF1: 89-90 kDa.

Positive Controls: HSF1 (m): 293T Lysate: sc-120904, HeLa whole cell lysate: sc-2200 or PC-12 cell lysate: sc-2250.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.