HSF1 (10H8): sc-13516

**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 transcription level. Heat shock transcription factors 1 and 2 (HSF1 and HSF2), also designated HSTF1 and HSTF2, are involved in this regulation. HSF1 and HSF2 are upregulated by estrogen at both the mRNA and protein level. HSF1 is normally found as a monomer, whose transcriptional activity is repressed by constitutive phosphorylation. 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, HRP (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, HRP (sc-13516 AB) and NIH/3T3 (C) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Ouz Marker™ Molecular Weight Standards detected with Ouz Marker MW Tag-Alexa Fluor® 488; sc-516790.

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**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 for 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.

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

**Molecular Weight of HSF1: 89-90 kDa.**

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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