

HSFX1 (5B12): sc-101056

BACKGROUND

Prokaryotic and eukaryotic cells respond to thermal and chemical stress by inducing the expression of a group of genes that encode heat shock proteins. In eukaryotes, this gene expression is regulated primarily at the transcription level by a family of heat shock transcription factors (HSFs). HSFX1 (heat shock transcription factor family, X linked 1), also known as LW-1, is a 423 amino acid protein that is predominately expressed in testis. Localized to the cytoplasm, HSFX1 is thought to be involved in spermatogenesis and male fertility.

REFERENCES

1. Tanguay, R.M. 1988. Transcriptional activation of heat-shock genes in eukaryotes. *Biochem. Cell Biol.* 66: 584-593.
2. Kawazoe, Y., et al. 1998. Proteasome inhibition leads to the activation of all members of the heat-shock-factor family. *Eur. J. Biochem.* 255: 356-362.
3. Shinka, T., et al. 2004. Molecular characterization of heat shock-like factor encoded on the human Y chromosome, and implications for male infertility. *Biol. Reprod.* 71: 297-306.
4. Lim, J., et al. 2006. A protein-protein interaction network for human inherited ataxias and disorders of Purkinje cell degeneration. *Cell* 125: 801-814.
5. Sheen, C.R., et al. 2007. Double complex mutations involving F8 and FUND2 caused by distinct break-induced replication. *Hum. Mutat.* 28: 1198-1206.

CHROMOSOMAL LOCATION

Genetic locus: HSFX1 (human) mapping to Xq28.

SOURCE

HSFX1 (5B12) is a mouse monoclonal antibody raised against recombinant HSFX1 of human origin.

PRODUCT

Each vial contains 50 µg IgG₁ kappa light chain in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HSFX1 (5B12) is recommended for detection of HSFX1 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HSFX1 siRNA (h): sc-91365, HSFX1 shRNA Plasmid (h): sc-91365-SH and HSFX1 shRNA (h) Lentiviral Particles: sc-91365-V.

Molecular Weight (predicted) of HSFX1: 47 kDa.

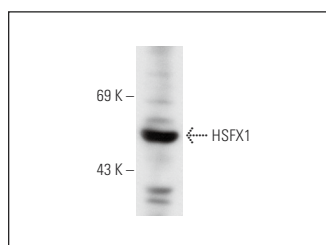
Molecular Weight (observed) of HSFX1: 41-53 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or A-431 whole cell lysate: sc-2201.

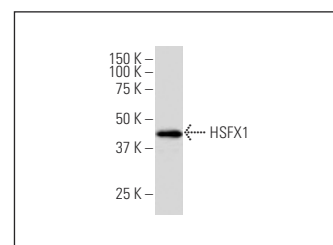
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



HSFX1 (5B12): sc-101056. Western blot analysis of HSFX1 expression in Jurkat whole cell lysate.



HSFX1 (5B12): sc-101056. Western blot analysis of HSFX1 expression in A-431 whole cell lysate.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.