

SF4 (B-3): sc-393016

BACKGROUND

SF4 (splicing factor 4), also known as RNA-binding protein (RBP) or F23858, is a 645 amino acid nuclear protein and member of the SURP family of splicing factors that is involved in pre-mRNA splicing. Existing as two alternatively spliced isoforms and highly expressed in testis and heart, SF4 is also found in skeletal muscle, brain and kidney where it functions as a component of the spliceosome. SF4 contains two SURP motif repeats, one G-patch domain and is encoded by a gene that maps to human chromosome 19p13.11. Chromosome 19 consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fc receptors (FcRs).

REFERENCES

- Olsen, A., et al. 1994. Gene organization of the pregnancy-specific glycoprotein region on human chromosome 19: assembly and analysis of a 700-kb cosmid contig spanning the region. *Genomics* 23: 659-668.
- Teglund, S., et al. 1994. The pregnancy-specific glycoprotein (PSG) gene cluster on human chromosome 19: fine structure of the 11 PSG genes and identification of 6 new genes forming a third subgroup within the carcinoembryonic antigen (CEA) family. *Genomics* 23: 669-684.

CHROMOSOMAL LOCATION

Genetic locus: SUGP1 (human) mapping to 19p13.11; SUGP1 (mouse) mapping to 8 B3.3.

SOURCE

SF4 (B-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 5-33 at the N-terminus of SF4 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SF4 (B-3) is available conjugated to agarose (sc-393016 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393016 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393016 PE), fluorescein (sc-393016 FITC), Alexa Fluor® 488 (sc-393016 AF488), Alexa Fluor® 546 (sc-393016 AF546), Alexa Fluor® 594 (sc-393016 AF594) or Alexa Fluor® 647 (sc-393016 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393016 AF680) or Alexa Fluor® 790 (sc-393016 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393016 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

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

APPLICATIONS

SF4 (B-3) is recommended for detection of SF4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

SF4 (B-3) is also recommended for detection of SF4 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for SF4 siRNA (h): sc-97276, SF4 siRNA (m): sc-153395, SF4 shRNA Plasmid (h): sc-97276-SH, SF4 shRNA Plasmid (m): sc-153395-SH, SF4 shRNA (h) Lentiviral Particles: sc-97276-V and SF4 shRNA (m) Lentiviral Particles: sc-153395-V.

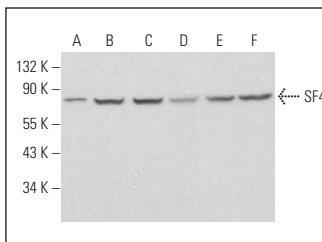
Molecular Weight of SF4: 72 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or RT-4 whole cell lysate: sc-364257.

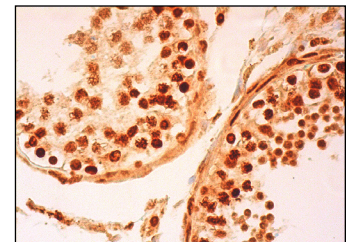
RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



SF4 (B-3): sc-393016. Western blot analysis of SF4 expression in Hep G2 (A), HeLa (B), RT-4 (C), NCI-H292 (D), HT-1080 (E) and PC-3 (F) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



SF4 (B-3): sc-393016. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear staining of cells in seminiferous ducts and Leydig cells.

RESEARCH USE

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