

Sptrx-2 (G-15): sc-160841

BACKGROUND

Sptrx-2 (spermatid-specific thioredoxin-2), also known as NME8, CILD6, SPTRX2 or TXNDC3 (thioredoxin domain-containing protein 3), is a 588 amino acid cytoplasmic and testis-specific protein belonging to the NDK family. Expressed only in primary spermatocytes and round spermatids, Sptrx-2 may be required during the final stages of sperm tail maturation in the testis and/or epididymis, where extensive disulfide bonding of fibrous sheath (FS) proteins occur. Sptrx-2 contains a thioredoxin domain and three inactive NDK domains that each lack the active His residue, suggesting that they are not capable of NDP kinase activity. Defects in the gene encoding Sptrx-2 are the cause of primary ciliary dyskinesia type 6, an autosomal recessive disorder characterized by axonemal abnormalities of motile cilia. Primary ciliary dyskinesia associated with situs inversus is referred to as Kartagener syndrome.

REFERENCES

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4. Duriez, B., et al. 2007. A common variant in combination with a nonsense mutation in a member of the thioredoxin family causes primary ciliary dyskinesia. *Proc. Natl. Acad. Sci. USA* 104: 3336-3341.
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CHROMOSOMAL LOCATION

Genetic locus: TXNDC3 (human) mapping to 7p14.1; Txndc3 (mouse) mapping to 13 A2.

SOURCE

Sptrx-2 (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Sptrx-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160841 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Sptrx-2 (G-15) is recommended for detection of Sptrx-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Sptrx-1 or Sptrx-3.

Suitable for use as control antibody for Sptrx-2 siRNA (h): sc-89740, Sptrx-2 siRNA (m): sc-153807, Sptrx-2 shRNA Plasmid (h): sc-89740-SH, Sptrx-2 shRNA Plasmid (m): sc-153807-SH, Sptrx-2 shRNA (h) Lentiviral Particles: sc-89740-V and Sptrx-2 shRNA (m) Lentiviral Particles: sc-153807-V.

Molecular Weight of Sptrx-2: 67 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.



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Try **Sptrx-2 (KK-M5): sc-135567**, our highly recommended monoclonal alternative to Sptrx-2 (G-15).