SANTA CRUZ BIOTECHNOLOGY, INC.

NFXL1 (S-13): sc-243612



BACKGROUND

NFXL1 (nuclear transcription factor, X-box binding-like 1), also known as HOZFP or URCC5, is a 911 amino acid single-pass membrane protein belonging to the NFX1 family and contains ten NF-X1-type zinc fingers and one RING-type zinc finger. NFXL1 may have similar characteristics as transcriptional repressor NFX1, a close family member. A ubiquitously expressed nucleic acid binding protein, NFX1 binds to the conserved X1 region within the X-box motif found in the promoter region of MHC class II genes. Acting as a potent repressor of MHC class II gene expression, NFX1 may be involved in regulating the duration of an inflammatory response. This suggests that NFX1 could be a useful target in the treatment of various diseases involving inflammation and autoimmunity. NFX1 is encoded by a gene located on human chromosome 9 while NFXL1 is encoded by a gene located on human chromosome 4. NFXL1 is expressed as two alternatively spliced isoforms.

REFERENCES

- 1. Hume, C.R. and Lee, J.S. 1989. Congenital immunodeficiencies associated with absence of HLA class II antigens on lymphocytes result from distinct mutations in trans-acting factors. Hum. Immunol. 26: 288-309.
- 2. Song, Z., et al. 1994. A novel cysteine-rich sequence-specific DNA-binding protein interacts with the conserved X-box motif of the human major histocompatibility complex class II genes via a repeated Cvs-His domain and functions as a transcriptional repressor. J. Exp. Med. 180: 1763-1774.
- 3. Kunz, J., et al. 2000. FAP1, a homologue of human transcription factor NF-X1, competes with rapamycin for binding to FKBP12 in yeast. Mol. Microbiol. 37: 1480-1493.
- 4. Arlotta, P., et al. 2002. Murine NFX.1: isolation and characterization of its messenger RNA, mapping of its chromosomal location and assessment of its developmental expression. Immunology 106: 173-181.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603255. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 6. Lisso, J., et al. 2006. The AtNFXL1 gene encodes a NF-X1 type zinc finger protein required for growth under salt stress. FEBS Lett. 580: 4851-4856.
- 7. Katzenellenbogen, R.A., et al. 2007. NFX1-123 and poly(A) binding proteins synergistically augment activation of telomerase in human papillomavirus type 16 E6-expressing cells. J. Virol. 81: 3786-3796.

CHROMOSOMAL LOCATION

Genetic locus: NFXL1 (human) mapping to 4p12; Nfxl1 (mouse) mapping to 5 C3.2.

SOURCE

NFXL1 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NFXL1 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 μ g lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243612 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NFXL1 (S-13) is recommended for detection of NFXL1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NFXL1 siRNA (h): sc-89312, NFXL1 siRNA (m): sc-149949, NFXL1 shRNA Plasmid (h): sc-89312-SH, NFXL1 shRNA Plasmid (m): sc-149949-SH, NFXL1 shRNA (h) Lentiviral Particles: sc-89312-V and NFXL1 shRNA (m) Lentiviral Particles: sc-149949-V.

Molecular Weight of NFXL1: 101 kDa.

Positive Controls: mouse skeletal muscle extract: sc-364250.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



extract

RESEARCH USE

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