

ANGEL2 (S-13): sc-241190

BACKGROUND

ANGEL2 (protein angel homolog 2) is a 544 amino acid protein that belongs to the CCR4/nocturin family and exists as 2 alternatively spliced isoforms. The CCR4 family of proteins are 3'-5'-deadenylases that function in the first step of the degradation of poly(A) mRNA. The CCR4 family most likely displays both RNA and ssDNA substrate preferences, thereby implicating a potential role in many regulatory processes. The ANGEL2 gene maps to human chromosome 1 (1q32.3), which is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. Chromosome 1 contains about 3,000 genes, and considering the great number of genes there are also a large number of diseases associated with it. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons disease, Gaucher disease and Usher syndrome are also associated with chromosome 1.

REFERENCES

1. Mathew, C.G., et al. 1987. Deletion of genes on chromosome 1 in endocrine neoplasia. *Nature* 328: 524-526.
2. Tsao, B.P., et al. 1997. Evidence for linkage of a candidate chromosome 1 region to human systemic lupus erythematosus. *J. Clin. Invest.* 99: 725-731.
3. Ekelund, J., et al. 2001. Chromosome 1 loci in Finnish schizophrenia families. *Hum. Mol. Genet.* 10: 1611-1617.
4. Chen, J., et al. 2002. CCR4, a 3'-5' poly(A) RNA and ssDNA exonuclease, is the catalytic component of the cytoplasmic deadenylase. *EMBO J.* 21: 1414-1426.
5. Viswanathan, P., et al. 2003. Identification of multiple RNA features that influence CCR4 deadenylation activity. *J. Biol. Chem.* 278: 14949-14955.
6. Nimmo, G., et al. 2010. Rhizomelic chondrodysplasia punctata type 2 resulting from paternal isodisomy of chromosome 1. *Am. J. Med. Genet. A* 152A: 1812-1817.
7. Najfeld, V., et al. 2010. Jumping translocations of the long arms of chromosome 1 in myeloid malignancies is associated with a high risk of transformation to acute myeloid leukaemia. *Br. J. Haematol.* 151: 288-291.

CHROMOSOMAL LOCATION

Genetic locus: ANGEL2 (human) mapping to 1q32.3; Angel2 (mouse) mapping to 1 H6.

SOURCE

ANGEL2 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ANGEL2 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-241190 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ANGEL2 (S-13) is recommended for detection of ANGEL2 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 ANGEL1.

Suitable for use as control antibody for ANGEL2 siRNA (h): sc-88811, ANGEL2 siRNA (m): sc-141060, ANGEL2 shRNA Plasmid (h): sc-88811-SH, ANGEL2 shRNA Plasmid (m): sc-141060-SH, ANGEL2 shRNA (h) Lentiviral Particles: sc-88811-V and ANGEL2 shRNA (m) Lentiviral Particles: sc-141060-V.

Molecular Weight of ANGEL2: 62 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.