

NBEAL1 (D-15): sc-168716

BACKGROUND

NBEAL1 (neurobeachin-like 1), also known as ALS2CR16 (amyotrophic lateral sclerosis 2 chromosomal region candidate gene 16 protein) or ALS2CR17, is a 2,694 amino acid protein that belongs to the WD repeat Neurobeachin family. While highly expressed in kidney, brain, prostate and testis, NBEAL1 is also found at low levels in peripheral blood leukocytes, small intestine, ovary and colon. NBEAL1 contains one BEACH domain and two WD repeats, and undergoes alternative splicing to produce two isoforms. The gene encoding NBEAL1 maps to human chromosome 2, which consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2 including Harlequin ichthyosis, sitosterolemia and Alström syndrome.

REFERENCES

1. Patel, S.B., et al. 1998. Mapping a gene involved in regulating dietary cholesterol absorption. The sitosterolemia locus is found at chromosome 2p21. *J. Clin. Invest.* 102: 1041-1044.
2. Zumsteg, U., et al. 2000. Alstrom syndrome: confirmation of linkage to chromosome 2p12-13 and phenotypic heterogeneity in three affected sibs. *J. Med. Genet.* 37: E8.
3. Shulenin, S., et al. 2001. An ATP-binding cassette gene (ABCG5) from the ABCG (White) gene subfamily maps to human chromosome 2p21 in the region of the Sitosterolemia locus. *Cytogenet. Cell Genet.* 92: 204-208.
4. Hadano, S., et al. 2001. A gene encoding a putative GTPase regulator is mutated in familial amyotrophic lateral sclerosis 2. *Nat. Genet.* 29: 166-173.
5. Chen, J., et al. 2004. Identification and characterization of NBEAL1, a novel human neurobeachin-like 1 protein gene from fetal brain, which is up regulated in glioma. *Brain Res. Mol. Brain Res.* 125: 147-155.
6. Kelsell, D.P., et al. 2005. Mutations in ABCA12 underlie the severe congenital skin disease harlequin ichthyosis. *Am. J. Hum. Genet.* 76: 794-803.
7. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 609816. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: NBEAL1 (human) mapping to 2q33.2; Nbeal1 (mouse) mapping to 1 C2.

SOURCE

NBEAL1 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NBEAL1 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.

PROTOCOLS

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

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-168716 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NBEAL1 (D-15) is recommended for detection of NBEAL1 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 NBEAL2.

NBEAL1 (D-15) is also recommended for detection of NBEAL1 in additional species, including equine and bovine.

Suitable for use as control antibody for NBEAL1 siRNA (h): sc-94256, NBEAL1 siRNA (m): sc-149846, NBEAL1 shRNA Plasmid (h): sc-94256-SH, NBEAL1 shRNA Plasmid (m): sc-149846-SH, NBEAL1 shRNA (h) Lentiviral Particles: sc-94256-V and NBEAL1 shRNA (m) Lentiviral Particles: sc-149846-V.

Molecular Weight of NBEAL1 isoforms: 307/297 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.

RESEARCH USE

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