

ANKHD1 (D-12): sc-160960

BACKGROUND

ANKHD1 (ankyrin repeat and KH domain containing 1), also known as MASK or VBARP, is a 2,542 amino acid protein that localizes to the cytoplasm and contains one KH domain and 25 ankyrin repeats. Expressed ubiquitously as multiple alternatively spliced isoforms, one of which exhibits higher expression in spleen and another of which is present at high levels in brain and cervix, ANKHD1 functions as a scaffolding protein that interacts with SH-PTP2 and may be associated with tumor progression. Specifically, ANKHD1 is thought to possess anti-apoptotic effects that are essential for cell survival and may be associated with the abnormal phenotype of leukemia cells. The gene encoding ANKHD1 maps to human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome.

REFERENCES

- Smith, R.K., et al. 2002. MASK, a large ankyrin repeat and KH domain-containing protein involved in *Drosophila* receptor tyrosine kinase signaling. *Development* 129: 71-82.
- Poulin, F., et al. 2003. Gene fusion and overlapping reading frames in the mammalian genes for 4E-BP3 and MASK. *J. Biol. Chem.* 278: 52290-52297.
- Miles, M.C., et al. 2005. Molecular and functional characterization of a novel splice variant of ANKHD1 that lacks the KH domain and its role in cell survival and apoptosis. *FEBS J.* 272: 4091-4102.
- Santos Duarte, A.S., et al. 2005. Characterisation of a new splice variant of MASK-BP3(ARF) and MASK human genes, and their expression patterns during haematopoietic cell differentiation. *Gene* 363: 113-122.

CHROMOSOMAL LOCATION

Genetic locus: ANKHD1/ANKHD1-EIF4EBP3 (human) mapping to 5q31.3; Ankh1 (mouse) mapping to 18 B2.

SOURCE

ANKHD1 (D-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ANKHD1 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-160960 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

ANKHD1 (D-12) is recommended for detection of ANKHD1 isoforms 1-5 and MASK-BP3 of mouse 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).

ANKHD1 (D-12) is also recommended for detection of ANKHD1 isoforms 1-5 and MASK-BP3 in additional species, including equine, canine, porcine and avian.

Molecular Weight of ANKHD1 full length: 270 kDa.

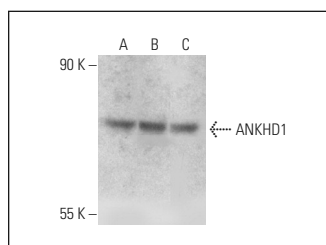
Molecular Weight of VBARP-L isoform: 69 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or MCF7 whole cell lysate: sc-2206.

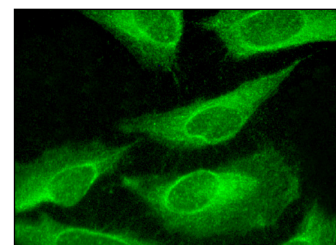
RECOMMENDED SECONDARY REAGENTS

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



ANKHD1 (D-12): sc-160960. Western blot analysis of ANKHD1 expression in K-562 (A), Jurkat (B) and MCF7 (C) whole cell lysates.



ANKHD1 (D-12): sc-160960. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Sidor, C.M., et al. 2013. Mask proteins are cofactors of Yorkie/YAP in the Hippo pathway. *Curr. Biol.* 23: 223-228.
- Machado-Neto, J.A., et al. 2015. ANKHD1 silencing inhibits Stathmin 1 activity, cell proliferation and migration of leukemia cells. *Biochim. Biophys. Acta* 1853: 583-593.

RESEARCH USE

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