

# MIRAB13 (D-22): sc-133787

## BACKGROUND

MIRAB13 (molecule interacting with Rab13), also known as MICALL1 (MICAL-like 1), is an 863 amino acid cytoplasmic protein belonging to the MICAL family that contains one CH (calponin-homology) domain, one LIM zinc-binding domain and 2 unique asparagine-proline-phenylalanine motifs, which are known to interact with EH-domains. Considered a cytoskeletal regulator, MIRAB13 associates with Rab 13, a tight junction protein, as well as EHD, a key regulator of ligand-induced endocytosis and recycling. MIRAB13 is encoded by a gene located on human chromosome 22, which houses over 500 genes and is the second smallest human chromosome. Mutations in several of the genes that map to chromosome 22 are involved in the development of Phelan-McDermid syndrome, Neurofibromatosis type 2, autism and schizophrenia.

## REFERENCES

- Gilbert, F. 1998. Disease genes and chromosomes: disease maps of the human genome. Chromosome 22. Genet. Test. 2: 89-97.
- Schwab, S.G. and Wildenauer, D.B. 1999. Chromosome 22 workshop report. Am. J. Med. Genet. 88: 276-278.
- Tsilchorozidou, T., Menko, F.H., Laloo, F., Kidd, A., De Silva, R., Thomas, H., Smith, P., Malcolmson, A., Dore, J., Madan, K., Brown, A., Yovos, J.G., Tsaligopoulos, M., Vogiatzis, N., Baser, M.E., Wallace, A.J. and Evans, D.G. 2004. Constitutional rearrangements of chromosome 22 as a cause of neurofibromatosis 2. J. Med. Genet. 41: 529-534.
- Arinami, T. 2006. Analyses of the associations between the genes of 22q11 deletion syndrome and schizophrenia. J. Hum. Genet. 51: 1037-1045.
- Sharma, M., Giridharan, S.S., Rahajeng, J., Naslavsky, N. and Caplan, S. 2009. MICAL-L1 links EHD1 to tubular recycling endosomes and regulates receptor recycling. Mol. Biol. Cell 20: 5181-5194.
- Friedberg, F. 2009. Alternative splicing for members of human mosaic domain superfamilies. I. The CH and LIM domains containing group of proteins. Mol. Biol. Rep. 36: 1059-1081.
- Kieken, F., Sharma, M., Jovic, M., Giridharan, S.S., Naslavsky, N., Caplan, S. and Sorgen, P.L. 2010. Mechanism for the selective interaction of C-terminal Eps15 homology domain proteins with specific Asn-Pro-Phe-containing partners. J. Biol. Chem. 285: 8687-8694.

## CHROMOSOMAL LOCATION

Genetic locus: MICALL1 (human) mapping to 22q13.1.

## SOURCE

MIRAB13 (D-22) is an affinity purified rabbit polyclonal antibody raised against synthetic MIRAB13 peptide of human origin.

## PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## RESEARCH USE

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

## APPLICATIONS

MIRAB13 (D-22) is recommended for detection of MIRAB13 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MIRAB13 siRNA (h): sc-75790, MIRAB13 shRNA Plasmid (h): sc-75790-SH and MIRAB13 shRNA (h) Lentiviral Particles: sc-75790-V.

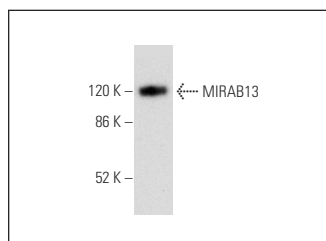
Molecular Weight of MIRAB13: 116 kDa.

Positive Controls: JEG-3 whole cell lysate: sc-364255 or human fetal liver whole cell lysate.

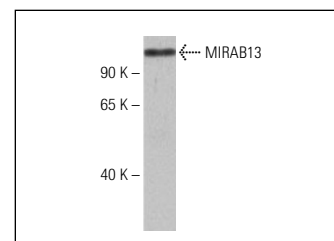
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

## DATA



MIRAB13 (D-22): sc-133787. Western blot analysis of MIRAB13 expression in JEG-3 whole cell lysate.



MIRAB13 (D-22): sc-133787. Western blot analysis of MIRAB13 expression in human fetal liver tissue extract.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **MIRAB13 (F-3): sc-398397**, our highly recommended monoclonal alternative to MIRAB13 (D-22).