

MAB21L (K-19): sc-84513

BACKGROUND

MAB21L (MAB21-like 1), also known as CAGR1, is a 359 amino acid nuclear protein expressed in cerebellum and skeletal muscle. A member of the MAB21 family, MAB21L is required for several aspects of embryonic development, including normal development of the eye and cerebellum. MAB21L is similar to the MAB21 cell fate-determining gene found in *Caenorhabditis elegans*, and it is suggested that the expansion of a trinucleotide repeat region in the 5' UTR of MAB21L may play a role in a variety of psychiatric disorders. MAB21L is encoded by a gene located on human chromosome 13, which houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome. Trisomy 13, also known as Patau syndrome, is a deadly syndrome associated with chromosome 13. The few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

REFERENCES

- Margolis, R.L., et al. 1999. Unstable expansion of the CAG trinucleotide repeat in MAB21L1: report of a second pedigree and effect on protein expression. *J. Med. Genet.* 36: 62-64.
- Wong, R.L., et al. 1999. Developmental expression of Mab21l2 during mouse embryogenesis. *Mech. Dev.* 87: 185-188.
- Wong, R.L., et al. 2002. Depletion of Mab21l1 and Mab21l2 messages in mouse embryo arrests axial turning, and impairs notochord and neural tube differentiation. *Teratology* 65: 70-77.
- Yamada, R., et al. 2003. Cell-autonomous involvement of Mab21l1 is essential for lens placode development. *Development* 130: 1759-1770.
- Merello, E., et al. 2004. Molecular genetic analysis of human homologs of *Caenorhabditis elegans* mab-21-like 1 gene in patients with neural tube defects. *Birth Defects Res. Part A Clin. Mol. Teratol.* 70: 885-888.
- Kennedy, B.N., et al. 2004. Zebrafish rx3 and mab21l2 are required during eye morphogenesis. *Dev. Biol.* 270: 336-349.

CHROMOSOMAL LOCATION

Genetic locus: MAB21L1 (human) mapping to 13q13.3, MAB21L2 (human) mapping to 4q31.3; Mab21l1 (mouse) mapping to 3 C, Mab21l2 (mouse) mapping to 3 F1.

SOURCE

MAB21L (K-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of MAB21L1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84513 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

MAB21L (K-19) is recommended for detection of MAB21L1 and MAB21L2 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); non cross-reactive with other MAB family members.

MAB21L (K-19) is also recommended for detection of MAB21L1 and MAB21L2 in additional species, including equine, canine, bovine, porcine and avian.

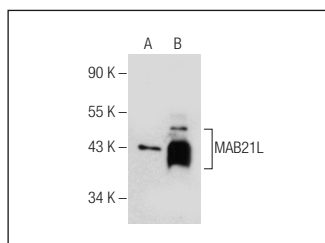
Molecular Weight of MAB21L: 38 kDa.

Positive Controls: MAB21L (h): 293T Lysate: sc-114747 or HeLa nuclear extract: sc-2120.

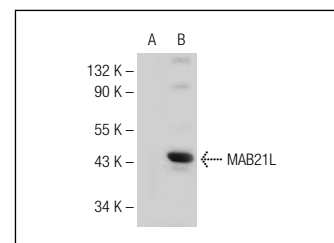
RECOMMENDED SECONDARY REAGENTS

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MAB21L (K-19): sc-84513. Western blot analysis of MAB21L expression in non-transfected: sc-117752 (A) and human MAB21L transfected: sc-114747 (B) 293T whole cell lysates.



MAB21L (K-19): sc-84513. Western blot analysis of MAB21L expression in non-transfected: sc-117752 (A) and human MAB21L transfected: sc-174549 (B) 293T whole cell lysates.

STORAGE

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



Try **MAB21L (A-7): sc-393017**, our highly recommended monoclonal alternative to MAB21L (K-19).