

# RIMKLB (E-16): sc-138928

## BACKGROUND

RIMKLB (ribosomal modification protein rimK-like family member B), also known as NAAGS (N-acetyl-aspartyl-glutamate synthetase B),  $\beta$ -citryl-glutamate synthase B or FAM80B, is a 386 amino acid cytoplasmic protein that belongs to the rimK family. Acting as the catalyst in the synthesis of  $\beta$ -citryl-glutamate and N-acetyl-aspartyl-glutamate, RIMKLB contains one ATP-grasp domain and exists as two alternatively spliced isoforms. The gene encoding RIMKLB maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

## REFERENCES

- Allen, T.L., et al. 1996. Cytogenetic and molecular analysis in trisomy 12p. *Am. J. Med. Genet.* 63: 250-256.
- Delgado Carrasco, J., et al. 2001. Achondrogenesis type II-hypochondrogenesis: radiological features. Case report. *An. Esp. Pediatr.* 55: 553-557.
- Yokoyama, T., et al. 2003. A case of Kniest dysplasia with retinal detachment and the mutation analysis. *Am. J. Ophthalmol.* 136: 1186-1188.
- Forzano, F., et al. 2007. A familial case of achondrogenesis type II caused by a dominant COL2A1 mutation and "patchy" expression in the mosaic father. *Am. J. Med. Genet. A* 143A: 2815-2820.
- Wainwright, H., et al. 2008. Visceral manifestations of hypochondrogenesis. *Virchows Arch.* 453: 203-207.
- Lo, F.S., et al. 2009. High resolution melting analysis for mutation detection for PTPN11 gene: applications of this method for diagnosis of Noonan syndrome. *Clin. Chim. Acta* 409: 75-77.
- Benussi, D.G., et al. 2009. Trisomy 12p and monosomy 4p: phenotype-genotype correlation. *Genet. Test. Mol. Biomarkers* 13: 199-204.
- Becker, I., et al. 2010. Molecular characterization of N-acetylaspartylglutamate synthetase. *J. Biol. Chem.* 285: 29156-29164.

## CHROMOSOMAL LOCATION

Genetic locus: RIMKLB (human) mapping to 12p13.31; Rimklb (mouse) mapping to 6 F1.

## SOURCE

RIMKLB (E-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of RIMKLB of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138928 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

RIMKLB (E-16) is recommended for detection of RIMKLB of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with FAM80A.

RIMKLB (E-16) is also recommended for detection of RIMKLB in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for RIMKLB siRNA (h): sc-95697, RIMKLB siRNA (m): sc-140313, RIMKLB shRNA Plasmid (h): sc-95697-SH, RIMKLB shRNA Plasmid (m): sc-140313-SH, RIMKLB shRNA (h) Lentiviral Particles: sc-95697-V and RIMKLB shRNA (m) Lentiviral Particles: sc-140313-V.

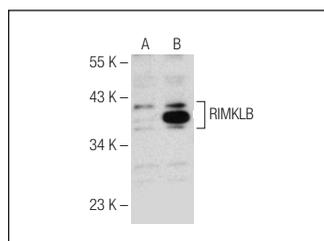
Molecular Weight of RIMKLB isoforms: 42/35 kDa.

Positive Controls: RIMKLB (h): 293T Lysate: sc-115054.

## 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<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

## DATA



RIMKLB (E-16): sc-138928. Western blot analysis of RIMKLB expression in non-transfected: sc-117752 (A) and human RIMKLB transfected: sc-115054 (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.

## RESEARCH USE

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