

RIMKLA (P-14): sc-244008

BACKGROUND

RIMKLA (ribosomal modification protein rimK-like family member A) is a 391 amino acid protein that belongs to the rimK family. Localizing to cytoplasm, RIMKLA contains one ATP-grasp domain and binds two manganese ions per subunit. RIMKLA catalyzes the synthesis of N-acetylaspartyl-glutamate (NAAG). RIMKLA is almost exclusively expressed in the CNS, whereas RIMKLB, which shares 65% sequence identity with RIMKLA, is expressed in CNS and testis. It has also been suggested that RIMKLA and RIMKLB also served to ligate free glutamate to (an) acceptor(s). RIMKLA catalyzed the ATP-dependent synthesis of N-acetylaspartylglutamate (NAAG) from N-acetylaspartate and L-glutamate. RIMKLB catalyzed this reaction as well as the synthesis of β -citrylglutamate. The RIMKLA gene is conserved in chimpanzee, canine, bovine and mouse, and maps to human chromosome 1p34.2.

REFERENCES

1. Watson, M.L., et al. 1990. Genomic organization of the selectin family of leukocyte adhesion molecules on human and mouse chromosome 1. *J. Exp. Med.* 172: 263-272.
2. Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. *Anticancer Res.* 26: 953-959.
3. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
4. Collard, F., et al. 2010. Molecular identification of N-acetylaspartylglutamate synthase and beta-citrylglutamate synthase. *J. Biol. Chem.* 285: 29826-29833.
5. Lodder-Gadaczek, J., et al. 2011. N-acetylaspartylglutamate synthetase II synthesizes N-acetylaspartylglutamylglutamate. *J. Biol. Chem.* 286: 16693-16706.
6. Collard, F., rimK. 2011. Molecular identification of β -citrylglutamate hydro-lase as glutamate carboxypeptidase 3. *J. Biol. Chem.* 286: 38220-38230.

CHROMOSOMAL LOCATION

Genetic locus: RIMKLA (human) mapping to 1p34.2; Rimkla (mouse) mapping to 4 D2.1.

SOURCE

RIMKLA (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RIMKLA of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-244008 P, (100 μ g 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.

APPLICATIONS

RIMKLA (P-14) is recommended for detection of RIMKLA of mouse 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).

RIMKLA (P-14) is also recommended for detection of RIMKLA in additional species, including canine and bovine.

Suitable for use as control antibody for RIMKLA siRNA (h): sc-88571, RIMKLA siRNA (m): sc-141635, RIMKLA shRNA Plasmid (h): sc-88571-SH, RIMKLA shRNA Plasmid (m): sc-141635-SH, RIMKLA shRNA (h) Lentiviral Particles: sc-88571-V and RIMKLA shRNA (m) Lentiviral Particles: sc-141635-V.

Molecular Weight of RIMKLA: 43 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.

PROTOCOLS

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