SANTA CRUZ BIOTECHNOLOGY, INC.

MRAP (T-18): sc-83733

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The Power to Question

BACKGROUND

MRAP (melanocortin 2 receptor accessory protein), also known as B27, C21orf61 or FALP, is a 172 amino acid protein that localizes to both the cell membrane and the cytoplasm. Expressed in testis, ovary, lymph node, thyroid and fat tissue, MRAP is involved in intracellular trafficking pathways in adipocyte cells and is required for the proper processing and function of MC2-R. Defects in the gene encoding MRAP are the cause of glucocorticoid deficiency type 2 (GCCD2), an autosomal recessive disorder that is characterized by progressive primary adrenal insufficiency due to congenital insensitivity or resistance to adrenocorticotropin. MRAP is expressed as four alternatively spliced isoforms that are encoded by a gene which maps to human chromosome 21.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609196. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
2. Metherell, L.A., et al. 2005. Mutations in MRAP, encoding a new interacting partner of the ACTH receptor, cause familial glucocorticoid deficiency type 2. Nat. Genet. 37: 166-170.
3. Modan-Moses, D., et al. 2006. Unusual presentation of familial glucocorticoid deficiency with a novel MRAP mutation. J. Clin. Endocrinol. Metab. 91: 3713-3717.
4. Rumié, H., et al. 2007. Clinical and biological phenotype of a patient with familial glucocorticoid deficiency type 2 caused by a mutation of melanocortin 2 receptor accessory protein. Eur. J. Endocrinol. 157: 539-542.
5. Roy, S., et al. 2007. Differential regulation of the human adrenocorticotropin receptor [melanocortin 2 receptor (MC2-R)] by human MC2R accessory protein isoforms α and β in isogenic human embryonic kidney 293 cells. Mol. Endocrinol. 21: 1656-1669.

CHROMOSOMAL LOCATION

Genetic locus: MRAP (human) mapping to 21q22.11.

SOURCE

MRAP (T-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an extracellular domain of MRAP 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-83733 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.

RESEARCH USE

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

APPLICATIONS

MRAP (T-18) is recommended for detection of MRAP of 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).

Suitable for use as control antibody for MRAP siRNA (h): sc-91374, MRAP shRNA Plasmid (h): sc-91374-SH and MRAP shRNA (h) Lentiviral Particles: sc-91374-V.

Molecular Weight of MRAP: 19 kDa.

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) 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.

PROTOCOLS

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