SANTA CRUZ BIOTECHNOLOGY, INC.

AGRP (MM0085-32B12): sc-517457

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ASP (agouti signaling protein or agouti switch protein) is a paracrine signaling molecule that causes hair follicle melanocytes to synthesize pheomelanin, a yellow pigment, instead of the black or brown pigment eumelanin. Consequently, agouti mice produce hairs with a subapical yellow band on an otherwise black or brown background when expressed during the midportion of hair growth. ASP is a 132-amino acid protein with a consensus signal peptide, indicating that the protein is probably secreted and is normally expressed in neonatal skin. The gene which encodes for ASP maps to human chromosome 20q11.22. AGRP (agouti-related protein) is a potent, selective antagonist of MC3R and MC4R. AGRP normally regulates body weight via central melanocortin receptors, analogous to the relation between agouti and MC1R for regulation of pigmentation. AGRP is expressed primarily in the adrenal gland, subthalamic nucleus and hypothalamus, with a lower level of expression occurring in testis, lung and kidney. The gene which encodes for AGRP maps to human chromosome 16q22.1.

REFERENCES

1. Kwon, H.Y., Bultman, S.J., Loffler, C., Chen, W.J.,. Furdon, P.J., Powell, J.G., Usala, A.L., Wilkison, W., Hansmann, I. and Woychik, R.P. 1994. Molecular structure and chromosomal mapping of the human homolog of the agouti gene. Proc. Natl. Acad. Sci. USA 91: 9760-9764.
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3. Shutter, J.R., Graham, M., Kinsey, A.C., Scully, S., Luthy, R. and Stark, K.L. 1997. Hypothalamic expression of ART, a novel gene related to agouti, is up-regulated in obese and diabetic mutant mice. Genes Dev. 11: 593-602.
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CHROMOSOMAL LOCATION

Genetic locus: AGRP (human) mapping to 16q22.1.

SOURCE

AGRP (MM0085-32B12) is a mouse monoclonal antibody raised against a recombinant protein corresponding to AgRP of human origin.

PRODUCT

Each vial contains 100 µg IgG_2 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

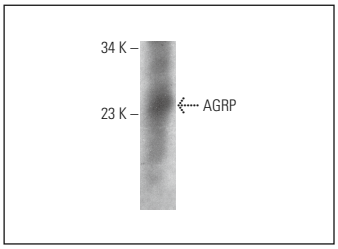
AGRP (MM0085-32B12) is recommended for detection of AGRP of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for AGRP siRNA (h): sc-39287, AGRP shRNA Plasmid (h): sc-39287-SH and AGRP shRNA (h) Lentiviral Particles: sc-39287-V.

Molecular Weight of AGRP: 14 kDa.

Positive Controls: human esophagus extract: sc-363760.

DATA



AGRP (MM0085-32B12): sc-517457. Western blot analysis of AGRP expression in human esophagus tissue extract.

RESEARCH USE

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

PROTOCOLS

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