

# APMAP (Y-20): sc-85407

## BACKGROUND

APMAP (adipocyte plasma membrane associated protein), also known as BSCv or C20orf3, is a 416 amino acid single-pass type II membrane protein that is ubiquitously expressed in adult and embryonic tissues. During adipocyte differentiation, APMAP translocates from the endoplasmic reticulum to the plasma membrane and is suggested to exhibit strong arylesterase activity. APMAP belongs to the strictosidine synthase family, exists as two alternatively spliced isoforms and is encoded by a gene located on human chromosome 20p11.21. The gene encoding C20orf3 maps to human chromosome 20, which houses over 600 genes some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome. Additionally, chromosome 20 contains a region with numerous genes which are thought important for seminal production and may be potential targets for male contraception.

## REFERENCES

1. Morita, M., et al. 2000. Genomic construct and mapping of the gene for CMAP (Leukocystatin/cystatin F, CST7) and identification of a proximal novel gene, BSCv (C20orf3). *Genomics* 67: 87-91.
2. Albrektsen, T., et al. 2001. Identification of a novel integral plasma membrane protein induced during adipocyte differentiation. *Biochem. J.* 359: 393-402.
3. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608642. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Ilhan, A., et al. 2008. Localization and characterization of the novel protein encoded by C20orf3. *Biochem. J.* 414: 485-495.
5. Bogner-Strauss, J.G., et al. 2010. Reconstruction of gene association network reveals a transmembrane protein required for adipogenesis and targeted by PPAR $\gamma$ . *Cell. Mol. Life Sci.* 67: 4049-4064.
6. Mekenkamp, L.J., et al. 2013. Chromosome 20p11 gains are associated with liver-specific metastasis in patients with colorectal cancer. *Gut* 62: 94-101.
7. Mosser, S., et al. 2015. The adipocyte differentiation protein APMAP is an endogenous suppressor of A $\beta$  production in the brain. *Hum. Mol. Genet.* 24: 371-382.

## CHROMOSOMAL LOCATION

Genetic locus: APMAP (human) mapping to 20p11.21; Apmmap (mouse) mapping to 2 G3.

## SOURCE

APMAP (Y-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an extracellular domain of APMAP of human origin.

## STORAGE

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

## 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-85407 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

APMAP (Y-20) is recommended for detection of APMAP of mouse, rat 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).

APMAP (Y-20) is also recommended for detection of APMAP in additional species, including equine, canine and porcine.

Suitable for use as control antibody for APMAP siRNA (h): sc-72731, APMAP siRNA (m): sc-141869, APMAP shRNA Plasmid (h): sc-72731-SH, APMAP shRNA Plasmid (m): sc-141869-SH, APMAP shRNA (h) Lentiviral Particles: sc-72731-V and APMAP shRNA (m) Lentiviral Particles: sc-141869-V.

Molecular Weight of APMAP isoforms: 46/32 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.