

ACY1L2 (I-20): sc-244874

BACKGROUND

ACY1L2 (aminoacylase 1-like 2), also known as peptidase M20 domain containing 2 (PM20D2), is a 436 amino acid protein belonging to the peptidase M20A family. ACY1L2 participates in hydrolase activity and protein binding and is encoded by a gene that maps to human chromosome 6q15. Making up nearly 6% of the human genome, chromosome 6 contains around 1,200 genes within 170 million base pairs of sequence. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Porphyria cutanea tarda is associated with chromosome 6, through the HFE gene which, when mutated, predisposes an individual to developing this porphyria. Notably, the PARK2 gene, which is associated with Parkinson's disease, and the genes encoding the major histocompatibility complex proteins, which are key molecular components of the immune system and determine predisposition to rheumatic diseases, are also located on chromosome 6. Stickler syndrome, 21-hydroxylase deficiency and maple syrup urine disease are also associated with genes on chromosome 6. A bipolar disorder susceptibility locus exists on the q arm of chromosome 6.

REFERENCES

- Mungall, A.J., et al. 2003. The DNA sequence and analysis of human chromosome 6. *Nature* 425: 805-811.
- Vuoristo, M.M., et al. 2004. A stop codon mutation in COL11A2 induces exon skipping and leads to non-ocular Stickler syndrome. *Am. J. Med. Genet. A* 130A: 160-164.
- Goodin, S., et al. 2004. Epothilones: mechanism of action and biologic activity. *J. Clin. Oncol.* 22: 2015-2025.
- McQueen, M.B., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. *Am. J. Hum. Genet.* 77: 582-595.
- Zanazzi, C., et al. 2007. Gene expression profiling and gene copy-number changes in malignant mesothelioma cell lines. *Genes Chromosomes Cancer* 46: 895-908.
- Bläker, H., et al. 2008. Recurrent deletions at 6q in early age of onset non-HNPCC- and non-FAP-associated intestinal carcinomas. Evidence for a novel cancer susceptibility locus at 6q14-q22. *Genes Chromosomes Cancer* 47: 159-164.
- Xuei, X., et al. 2010. GABRR1 and GABRR2, encoding the GABA-A receptor subunits rho1 and rho2, are associated with alcohol dependence. *Am. J. Med. Genet. B Neuropsychiatr. Genet.* 153B: 418-427.
- Jin, D., et al. 2010. Adrenomedullin reduces expression of adhesion molecules on lymphatic endothelial cells. *Regul. Pept.* 166:21-27.
- SWISS-PROT/TrEMBL (Q8IYS1). World Wide Web URL: <http://www.uniprot.org/uniprot/Q8IYS1>

CHROMOSOMAL LOCATION

Genetic locus: PM20D2 (human) mapping to 6q15; Pm20d2 (mouse) mapping to 4 A5.

SOURCE

ACY1L2 (I-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ACY1L2 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-244874 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ACY1L2 (I-20) is recommended for detection of ACY1L2 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).

ACY1L2 (I-20) is also recommended for detection of ACY1L2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ACY1L2 siRNA (h): sc-95175, ACY1L2 shRNA Plasmid (h): sc-95175-SH and ACY1L2 shRNA (h) Lentiviral Particles: sc-95175-V.

Molecular Weight of ACY1L2: 48 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.

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.

PROTOCOLS

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