SANTA CRUZ BIOTECHNOLOGY, INC.

CYYR1 (S-13): sc-83237

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CYYR1 (cysteine/tyrosine-rich 1), also known as C21orf95, is a 154 amino acid single-pass type I membrane protein that is widely expressed as two alternatively spliced isoforms and may play a role in the development of neuroendocrine tumors. The gene encoding CYYR1 maps to human chromosome 21. The smallest of the human chromosomes, chromosome 21 comprises about 1.5% of the human genome and contains nearly 300 genes and 47 million base pairs. Down syndrome, also known as trisomy 21, is the disease most commonly associated with chromosome 21. Alzheimer's disease, Jervell and Lange-Nielsen syndromes and amyotrophic lateral sclerosis are also associated with chromosome 21. Translocations are found to occur between chromosome 21 and 8, and chromosome 21 and 12, in certain leukemias.

REFERENCES

1. Tesson, F., et al. 1996. Exclusion of KCNE1 (IsK) as a candidate gene for Jervell and Lange-Nielsen syndrome. J. Mol. Cell. Cardiol. 28: 2051-2055.
2. Tyson, J., et al. 1997. IsK and KvLQT1: mutation in either of the two subunits of the slow component of the delayed rectifier potassium channel can cause Jervell and Lange-Nielsen syndrome. Hum. Mol. Genet. 6: 2179-2185.
3. Müller, S., et al. 2000. Molecular cytogenetic dissection of human chromosomes 3 and 21 evolution. Proc. Natl. Acad. Sci. USA 97: 206-211.
4. Vitale, L., et al. 2002. Cysteine and tyrosine-rich 1 (CYYR1), a novel unpredicted gene on human chromosome 21 (21q21.2), encodes a cysteine and tyrosine-rich protein and defines a new family of highly conserved vertebrate-specific genes. Gene 290: 141-151.
5. Robakis, N.K. 2006. The discovery and mapping to chromosome 21 of the Alzheimer's amyloid gene: history revised. J. Alzheimers Dis. 10: 453-455.
6. Sun, X., et al. 2006. BACE2, as a novel APP θ-secretase, is not responsible for the pathogenesis of Alzheimer's disease in Down syndrome. FASEB J. 20: 1369-1376.
7. Aït Yahya-Graison, E., et al. 2007. Classification of human chromosome 21 gene-expression variations in Down syndrome: impact on disease phenotypes. Am. J. Hum. Genet. 81: 475-491.

CHROMOSOMAL LOCATION

Genetic locus: CYYR1 (human) mapping to 21q21.3; Cyyr1 (mouse) mapping to 16 C3.3.

SOURCE

CYYR1 (S-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of CYYR1 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.

PROTOCOLS

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

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-83237 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CYYR1 (S-13) is recommended for detection of CYYR1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

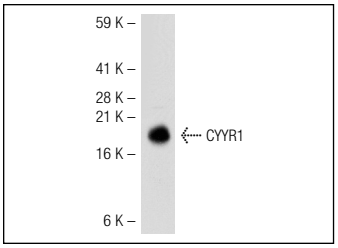
CYYR1 (S-13) is also recommended for detection of CYYR1 in additional species, including equine, canine and avian.

Suitable for use as control antibody for CYYR1 siRNA (h): sc-91523, CYYR1 siRNA (m): sc-142766, CYYR1 shRNA Plasmid (h): sc-91523-SH, CYYR1 shRNA Plasmid (m): sc-142766-SH, CYYR1 shRNA (h) Lentiviral Particles: sc-91523-V and CYYR1 shRNA (m) Lentiviral Particles: sc-142766-V.

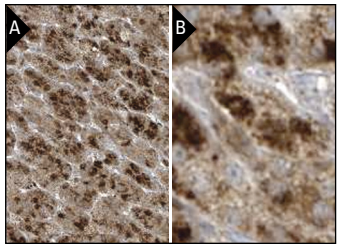
Molecular Weight of CYYR1: 17 kDa.

Positive Controls: mouse brain extract: sc-2253.

DATA



CYYR1 (S-13): sc-83237. Western blot analysis of CYYR1 expression in mouse brain tissue extract.



CYYR1 (S-13): sc-83237. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland showing cytoplasmic staining of cortical cells at low (**A**) and high (**B**) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

RESEARCH USE

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