SANTA CRUZ BIOTECHNOLOGY, INC.

AADACL3 (F-13): sc-244843

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

AADACL3 (arylacetamide deacetylase-like 3), also known as RP11-474O21.3, is a 350 amino acid protein that belongs to the "GDXG" lipolytic enzyme family and participates in hydrolase activity. Existing as 2 alternatively spliced isoforms, AADACL3 is encoded by a gene that maps to human chromosome 1p36.21. Chromosome 1, the largest human chromosome, makes up 8% of the human genome and contains about 260 million base pairs, which encode 3,000 genes. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Blackwood, D.H., Fordyce, A., Walker, M.T., St Clair, D.M., Porteous, D.J. and Muir, W.J. 2001. Schizophrenia and affective disorders—cosegregation with a translocation at chromosome 1q42 that directly disrupts brain-expressed genes: clinical and P300 findings in a family. Am. J. Hum. Genet. 69: 428-433.
2. Weise, A., Starke, H., Mrasek, K., Claussen, U. and Liehr, T. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.
3. Marzin, Y., Jamet, D., Douet-Guilbert, N., Morel, F., Le Bris, M.J., Morice, P., Abgrall, J.F., Berthou, C. and De Braekeleer, M. 2006. Chromosome 1 abnormalities in multiple myeloma. Anticancer Res. 26: 953-959.
4. Gregory, S.G., Barlow, K.F., McLay, K.E., Kaul, R., Swarbreck, D., Dunham, A., Scott, C.E., Howe, K.L., Woodfine, K., Spencer, C.C., Jones, M.C., Gillson, C., Searle, S., Zhou, Y., Kokocinski, F., McDonald, L., Evans, R., Phillips, K., Atkinson, A., Cooper, R., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
5. Lindstrand, A., Malmgren, H., Sahlen, S., Xin, H., Schoumans, J. and Blennow, E. 2008. Molecular cytogenetic characterization of a constitutional, highly complex intrachromosomal rearrangement of chromosome 1, with 14 breakpoints and a 0.5 Mb submicroscopic deletion. Am. J. Med. Genet. A 146A: 3217-3222.
6. Stacey, S.N., Gudbjartsson, D.F., Sulem, P., Bergthorsson, J.T., Kumar, R., Thorleifsson, G., Sigurdsson, A., Jakobsdottir, M., Sigurgeirsson, B., Benediktsdottir, K.R., Thorisdottir, K., Ragnarsson, R., Scherer, D., Rudnai, P., Gurzau, E., Koppova, K., et al. 2008. Common variants on 1p36 and 1q42 are associated with cutaneous basal cell carcinoma but not with melanoma or pigmentation traits. Nat. Genet. 40: 1313-1318.
7. Najfeld, V., Tripodi, J., Scalise, A., Silverman, L.R., Silver, R.T., Fruchtman, S. and Hoffman, R. 2010. Jumping translocations of the long arms of chromosome 1 in myeloid malignancies is associated with a high risk of transformation to acute myeloid leukaemia* Br J Haematol. 151: 288-291.
8. SWISS-PROT/TrEMBL (Q5VUY0). World Wide Web URL: http://www.uniprot.org/uniprot/Q5VUY0

CHROMOSOMAL LOCATION

Genetic locus: AADACL3 (human) mapping to 1p36.21.

SOURCE

AADACL3 (F-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AADACL3 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-244843 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

AADACL3 (F-13) is recommended for detection of AADACL3 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); non cross-reactive with AADACL1, AADACL2, or AADACL4.

Suitable for use as control antibody for AADACL3 siRNA (h): sc-88731, AADACL3 shRNA Plasmid (h): sc-88731-SH and AADACL3 shRNA (h) Lentiviral Particles: sc-88731-V.

Molecular Weight of AADACL3: 40 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.