SANTA CRUZ BIOTECHNOLOGY, INC.

NT5DC1 (B-3): sc-398165

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NT5DC1 (5'-nucleotidase domain-containing protein 1) is a 455 amino acid protein that belongs to the 5'(3')-deoxyribonucleotidase family. The gene that encodes NT5DC1 consists of approximately 144,857 bases and maps to human chromosome 6q22.1. 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, and Stickler syndrome, 21-hydroxylase deficiency and maple syrup urine disease are also associated with genes on chromosome 6. Notably, the PARK2 gene, which is associated with Parkinson's disease, and the genes encoding the major histocompatiblity complex proteins are also located on chromosome 6. A bipolar disorder susceptibility locus has been identified on the q arm of chromosome 6.

REFERENCES

1. Brunner, H.G., et al. 1994. A Stickler syndrome gene is linked to chromosome 6 near the COL11A2 gene. Hum. Mol. Genet. 3: 1561-1564.
2. Cesari, R., et al. 2003. Parkin, a gene implicated in autosomal recessive juvenile parkinsonism, is a candidate tumor suppressor gene on chromosome 6q25-q27. Proc. Natl. Acad. Sci. USA 100: 5956-5961.
3. Harel, T., et al. 2005. COL11A2 mutation associated with autosomal recessive Weissenbacher-Zweymuller syndrome: molecular and clinical overlap with otospondylomegaepiphyseal dysplasia (OSMED). Am. J. Med. Genet. A 132A: 33-35.
4. 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.

CHROMOSOMAL LOCATION

Genetic locus: NT5DC1 (human) mapping to 6q22.1; Nt5dc1 (mouse) mapping to 10 B1.

SOURCE

NT5DC1 (B-3) is a mouse monoclonal antibody raised against amino acids 277-364 mapping within an internal region of NT5DC1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NT5DC1 (B-3) is available conjugated to agarose (sc-398165 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398165 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398165 PE), fluorescein (sc-398165 FITC), Alexa Fluor® 488 (sc-398165 AF488), Alexa Fluor® 546 (sc-398165 AF546), Alexa Fluor® 594 (sc-398165 AF594) or Alexa Fluor® 647 (sc-398165 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398165 AF680) or Alexa Fluor® 790 (sc-398165 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

NT5DC1 (B-3) is recommended for detection of NT5DC1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NT5DC1 siRNA (h): sc-95375, NT5DC1 siRNA (m): sc-150083, NT5DC1 shRNA Plasmid (h): sc-95375-SH, NT5DC1 shRNA Plasmid (m): sc-150083-SH, NT5DC1 shRNA (h) Lentiviral Particles: sc-95375-V and NT5DC1 shRNA (m) Lentiviral Particles: sc-150083-V.

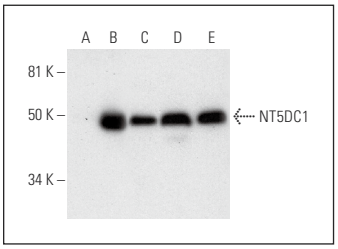
Molecular Weight of NT5DC1: 52 kDa.

Positive Controls: NT5DC1 (h): 293T Lysate: sc-112009, MCF7 whole cell lysate: sc-2206 or Jurkat whole cell lysate: sc-2204.

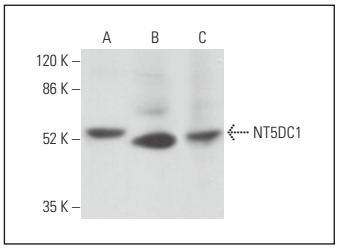
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



NT5DC1 (B-3): sc-398165. Western blot analysis of NT5DC1 expression in non-transfected 293T: sc-117752 (**A**), human NT5DC1 transfected 293T: sc-112009 (**B**), Hep G2 (**C**), MCF7 (**D**) and Jurkat (**E**) whole cell lysates.



NT5DC1 (B-3): sc-398165. Western blot analysis of NT5DC1 expression in TK-1 whole cell lysate (**A**) and human heart (**B**) and rat liver (**C**) tissue extracts.

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.

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