

NUDT7 (E-9): sc-390911

BACKGROUND

NUDT7 (nucleoside diphosphate-linked moiety X motif 7), also known as peroxisomal coenzyme A diphosphatase NUDT7 or nudix motif 7, is a 238 amino acid protein that functions as a coenzyme A diphosphatase that mediates the cleavage of CoA into 3',5'-ADP and 4'-phosphopantetheine. Localized to the peroxisome, NUDT7 belongs to the nudix hydrolase family and PCD1 subfamily. NUDT7 is expressed in heart, spleen, liver, pancreas, pituitary, small intestine, kidney and placenta. NUDT7 contains one nudix hydrolase domain and is encoded by a gene that maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

- Baraitser, M. and Preece, M.A. 1983. The Rubinstein-Taybi syndrome: occurrence in two sets of identical twins. *Clin. Genet.* 23: 318-320.
- Breuning, M.H., et al. 1993. Rubinstein-Taybi syndrome caused by submicroscopic deletions within 16p13.3. *Am. J. Hum. Genet.* 52: 249-254.
- Bomont, P., et al. 2000. The gene encoding gigaxonin, a new member of the cytoskeletal BTB/Kelch repeat family, is mutated in giant axonal neuropathy. *Nat. Genet.* 26: 370-374.
- Gasmi, L. and McLennan, A.G. 2001. The mouse Nudt7 gene encodes a peroxisomal nudix hydrolase specific for coenzyme A and its derivatives. *Biochem. J.* 357: 33-38.

CHROMOSOMAL LOCATION

Genetic locus: NUDT7 (human) mapping to 16q23.1.

SOURCE

NUDT7 (E-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-28 at the N-terminus of NUDT7 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NUDT7 (E-9) is available conjugated to agarose (sc-390911 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390911 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390911 PE), fluorescein (sc-390911 FITC), Alexa Fluor® 488 (sc-390911 AF488), Alexa Fluor® 546 (sc-390911 AF546), Alexa Fluor® 594 (sc-390911 AF594) or Alexa Fluor® 647 (sc-390911 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390911 AF680) or Alexa Fluor® 790 (sc-390911 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390911 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

NUDT7 (E-9) is recommended for detection of NUDT7 of 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 NUDT7 siRNA (m): sc-150113, NUDT7 siRNA (m): sc-150113-SH and NUDT7 siRNA (m): sc-150113-V.

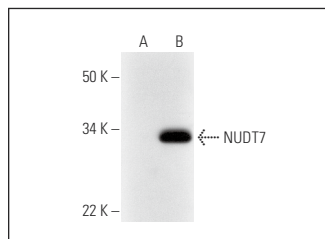
Molecular Weight of NUDT7: 27 kDa.

Positive Controls: NUDT7 (h): 293T Lysate: sc-372453.

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



NUDT7 (E-9): sc-390911. Western blot analysis of NUDT7 expression in non-transfected: sc-117752 (A) and human NUDT7 transfected: sc-372453 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Divers, J., et al. 2020. GWAS for time to failure of kidney transplants from African American deceased donors. *Clin. Transplant.* 34: e13827.

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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