

NUDT3/4/10/11 (A-14): sc-109599

BACKGROUND

NUDT (nudix (nucleoside diphosphate linked moiety X)-type motif) 3, 4, 10 and 11 are members of the nudix hydrolase family of pyrophosphatases. Nudix hydrolases contain a characteristic nudix domain and are responsible for catalyzing the hydrolysis of nucleoside diphosphate derivatives. NUDT3 acts as a negative regulator of the ERK 1/2 pathway, hydrolyzes 5-phosphoribose 1-diphosphate and is suggested to play a role in signal transduction. NUDT4 is also implicated in signal transduction and catalyzes dinucleoside oligophosphate Ap6A hydrolysis. NUDT10 functions as a manganese-dependent polyphosphate phosphohydrolase and specifically metabolizes diadenosine-polyphosphates and diphosphoinositol polyphosphates, to a lesser extent. NUDT10 is very closely related to NUDT11; the two proteins differ from one another by only one amino acid.

REFERENCES

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2. Safrany, S.T., Ingram, S.W., Cartwright, J.L., Falck, J.R., McLennan, A.G., Barnes, L.D. and Shears, S.B. 1999. The diadenosine hexaphosphate hydrolases from *Schizosaccharomyces pombe* and *Saccharomyces cerevisiae* are homologues of the human diphosphoinositol polyphosphate phosphohydrolase. Overlapping substrate specificities in a MutT-type protein. *J. Biol. Chem.* 274: 21735-21740.
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4. Caffrey, J.J. and Shears, S.B. 2001. Genetic rationale for microheterogeneity of human diphosphoinositol polyphosphate phosphohydrolase type 2. *Gene* 269: 53-60.
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SOURCE

NUDT3/4/10/11 (A-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NUDT4 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.

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-109599 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NUDT3/4/10/11 (A-14) is recommended for detection of NUDT3, NUDT4, NUDT10 and NUDT11 of mouse, rat 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).

NUDT3/4/10/11 (A-14) is also recommended for detection of NUDT3, NUDT4, NUDT10 and NUDT11 in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of NUDT3: 19 kDa.

Molecular Weight of NUDT4: 20 kDa.

Molecular Weight of NUDT10: 19 kDa.

Molecular Weight of NUDT11: 26 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.

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.



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Try **NUDT3/4/10/11 (B-8): sc-398923**, our highly recommended monoclonal alternative to NUDT3/4/10/11 (A-14).