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NUDT15 Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP11030b

Specification

NUDT15 Antibody (C-term) Blocking peptide - Product Information

Primary Accession Q9NV35

NUDT15 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 55270

Other Names
Probable 8-oxo-dGTP diphosphatase NUDT15, 8-oxo-dGTPase NUDT15, 8-dihydro-8-oxoguanine-triphosphatase NUDT15, MutT homolog 2, MTH2, Nucleoside diphosphate-linked moiety X motif 15, Nudix motif 15, NUDT15, MTH2

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

NUDT15 Antibody (C-term) Blocking peptide - Protein Information

Name NUDT15 (HGNC:23063)

Function
May catalyze the hydrolysis of nucleoside triphosphates including dGTP, dTTP, dCTP, their oxidized forms like 8-oxo-dGTP and the prodrug thiopurine derivatives 6-thio-dGTP and 6-thio-GTP (PubMed:26238318). Could also catalyze the hydrolysis of some nucleoside diphosphate derivatives (PubMed:22556419, PubMed:26238318). Hydrolyzes oxidized nucleosides triphosphates like 8-oxo-dGTP in vitro, but the specificity and efficiency towards these substrates are low. Therefore, the potential in vivo sanitizing role of this enzyme, that would consist in removing oxidatively damaged forms of nucleosides to prevent their incorporation into DNA, is unclear (PubMed:26238318, PubMed:22556419). Through the hydrolysis of thioguanosine triphosphates may participate in the catabolism of thiopurine drugs (PubMed:26238318, PubMed:25108385). May also have a role in DNA synthesis and cell cycle progression by stabilizing PCNA (PubMed:<a

href="http://www.uniprot.org/citations/19419956" target="_blank">19419956). Exhibits decapping activity towards dpCoA-capped RNAs in vitro (By similarity).

NUDT15 Antibody (C-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

NUDT15 Antibody (C-term) Blocking peptide - Images

NUDT15 Antibody (C-term) Blocking peptide - Background

Mediates the hydrolysis of some nucleoside diphosphate derivatives. Can degrade 8-oxo-dGTP in vitro, suggesting that it may remove an oxidatively damaged form of guanine (7,8-dihydro-8-oxoguanine) from DNA and the nucleotide pool, thereby preventing misincorporation of 8-oxo-dGTP into DNA thus preventing A:T to C:G transversions. Its substrate specificity in vivo however remains unclear (By similarity). May have a role in DNA synthesis and cell cycle progression throught the interaction with PCNA.

NUDT15 Antibody (C-term) Blocking peptide - References

Hori, M., et al. Free Radic. Biol. Med. 48(9):1197-1201(2010)Yu, Y., et al. J. Biol. Chem. 284(29):19310-19320(2009)Dunham, A., et al. Nature 428(6982):522-528(2004)Cai, J.P., et al. Biochem. Biophys. Res. Commun. 305(4):1073-1077(2003)