

32-2619: NUDT1 Recombinant Protein

Alternative Name : 7,8-dihydro-8-oxoguanine triphosphatase, 8-oxo-dGTPase, Nucleoside diphosphate-linked moiety X motif 1, Nudix motif 1, NUDT1, MTH1.

Description

Source : Escherichia Coli. NUDT1 Human Recombinant fused with a 20 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 176 amino acids (1-156 a.a.) and having a molecular mass of 20.1kDa. The NUDT1 is purified by proprietary chromatographic techniques. NUDT1 is an enzyme that hydrolyzes oxidized purine nucleoside triphosphates, such as 8-oxo-dGTP, 8-oxo-dATP, 2-hydroxy-dATP, and 2-hydroxy rATP, to monophosphates, thereby preventing misincorporation of 8-oxo-dGTP into DNA thus preventing A:T to C:G transversions. NUDT1 is found mostly in the cytoplasm, with some in the mitochondria, suggesting that it is involved in the sanitization of nucleotide pools both for nuclear and mitochondrial genomes. Moreover, NUDT1 is expressed at much higher levels in proliferating cells than in resting cells. Misincorporation of oxidized nucleoside triphosphates into DNA/RNA during replication and transcription can cause mutations which may result in carcinogenesis or neurodegeneration.

Product Info

Amount : 20 µg
Purification : Greater than 95.0% as determined by SDS-PAGE.
Content : The NUDT1 solution (1 mg/ml) contains 20mM Tris-HCl buffer (pH8.0), 10% glycerol, 2mM DTT and 100mM NaCl.
Storage condition : NUDT1 should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
Amino Acid : MGSSHHHHHH SSGLVPRGSH MGASRLYTLV LVLQPQRVLL GMKKRGFGAG RWNGFGGKVQ
 EGETIEDGAR RELQEESGLT VDALKHVGQI VFEFVGEPEL MDVHVFTDS IQGTPVESDE MRPCWFQLDQ
 IPFKDMWPDD SYWFPPLLQK KKFHGYFKFQ GQDTILDYTL REVDTV.

