Recombinant 8ODP protein (His tag)

Catalog Number	544580
Synonyms	2-hydroxy-dATP diphosphatase; 7,8-dihydro-8-oxoguanine triphosphatase; 8-oxo-dGTPase; Methylated purine nucleoside triphosphate hydrolase; Nucleoside diphosphate-linked moiety X motif 1; Nudix motif 1
Species	Human
Expression System	E. coli
Accession	P36639
Molecular Weight	Predictes a molecular mass of 19.61 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 21 kDa band.

Product Information

Sequence Region	1-156
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-156 aa (P36639) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human NUDT1 Fragment (1-156): A high-purity, functional fragment of the oxidized purine nucleoside triphosphate hydrolase (NUDT1), encompassing the complete Nudix hydrolase domain. This product is an essential tool for studying nucleotide sanitization, oxidative stress response, and DNA damage prevention mechanisms. The full-length NUDT1 protein, also known as 8-oxo-dGTPase, is a critical sanitizer of the oxidized nucleotide pool in human cells. It hydrolyzes mutagenic substrates including 2-oxo-dATP, 8-oxo-dGTP, and methylated purine nucleoside triphosphates, preventing their incorporation into DNA and safeguarding against A:T to C:G and G:C to T:A transversions. This antimutagenic activity provides cellular protection against oxidative stress. NUDT1 localizes primarily to the cytosol, with minor populations in the mitochondrial matrix and nucleus, reflecting its role in maintaining genomic integrity across multiple compartments. The recombinant fragment (1-156) retains the complete Nudix hydrolase domain, enabling focused investigation of its catalytic and protective functions.