

NUDT2 Protein, Human (His)

Cat. No.:	HY-P77108
Synonyms:	Bis(5'-nucleosyl)-tetrphosphatase [asymmetrical]; Ap4Aase; Nudix motif 2; APAH1
Species:	Human
Source:	E. coli
Accession:	P50583 (M1-A147)
Gene ID:	318
Molecular Weight:	Approximately 18.3-19 kDa

PROPERTIES

AA Sequence	<p> M A L R A C G L I I F R R C L I P K V D N N A I E F L L L Q A S D G I H H W T P P K G H V E P G E D D L E T A L R E T Q E E A G I E A G Q L T I I E G F K R E L N Y V A R N K P K T V I Y W L A E V K D Y D V E I R L S H E H Q A Y R W L G L E E A C Q L A Q F K E M K A A L Q E G H Q F L C S I E A </p>
Biological Activity	Measured by its ability to the proliferation of MCF-7 human breast cancer cells. The ED ₅₀ for this effect is 3.005 µg/mL, corresponding to a specific activity is 332.7787 Unit/mg.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>NUDT2, or nudix hydrolase 2, is an enzyme that plays a pivotal role in nucleotide metabolism. It catalyzes the asymmetric hydrolysis of diadenosine 5',5'''-P₁,P₄-tetrphosphate (Ap4A), leading to the production of AMP and ATP. This enzymatic activity contributes to the regulation of cellular nucleotide pools. Additionally, NUDT2 exhibits decapping activity in vitro, targeting FAD-capped RNAs and dpCoA-capped RNAs. This dual functionality suggests its involvement in RNA turnover processes. It has to underscore NUDT2's significance in nucleotide metabolism, highlighting its capacity to hydrolyze Ap4A</p>
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and its potential role in RNA decapping activities, contributing to the broader understanding of its functions in cellular processes related to nucleotide homeostasis and RNA metabolism.

Caution: Product has not been fully validated for medical applications. For research use only.

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