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NUDT5 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57557

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q9UKK9
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	24328

Additional Information

Gene ID	11164
Other Names	ADP-sugar pyrophosphatase, 3.6.1.13, 8-oxo-dGDP phosphatase, 3.6.1.58, Nuclear ATP-synthesis protein NUDIX5, 2.7.7.96, Nucleoside diphosphate-linked moiety X motif 5, Nudix motif 5, hNUDT5, YSA1H, NUDT5, NUDIX5 {ECO:0000303|PubMed:27257257}
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	NUDT5 (HGNC:8052)
Function	Enzyme that can either act as an ADP-sugar pyrophosphatase in absence of diphosphate or catalyze the synthesis of ATP in presence of diphosphate (PubMed:27257257). In absence of diphosphate, hydrolyzes with similar activities various modified nucleoside diphosphates such as ADP-ribose, ADP-mannose, ADP-glucose, 8-oxo-GDP and 8-oxo-dGDP (PubMed:10567213, PubMed:10722730, PubMed:17052728, PubMed:12717453, PubMed:19699693, PubMed:21389046, PubMed:38635563). Can also hydrolyze other nucleotide sugars with low activity (PubMed:12717453, PubMed:19699693, PubMed:21389046). In presence of diphosphate, mediates the synthesis of ATP in the nucleus by catalyzing the conversion of ADP-ribose to ATP and ribose 5-phosphate. Nuclear ATP synthesis takes place when dephosphorylated at Thr-45 (PubMed:27257257). Nuclear ATP generation is required for extensive chromatin remodeling events that are energy-consuming (PubMed:27257257). In vitro, it has decapping activity on 11-mer RNA capped with uridine diphosphate N- acetylglucosamine

	(UDP-GlcNAc) by hydrolyzing the pyrophosphate bridge of the sugar cap (PubMed:38716860). Does not play a role in U8 snoRNA decapping (By similarity). Binds U8 snoRNA (By similarity).
Cellular Location	Nucleus.
Tissue Location	Widely expressed. Most abundant in liver.

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