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Anti-NUDT5 Rabbit Monoclonal Antibody

Catalog # ABO16103

Product Information

Application	WB, IHC
Primary Accession	Q9UKK9
Host	Rabbit
Isotype	IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-NUDT5 Rabbit Monoclonal Antibody . Tested in WB, IHC applications. This antibody reacts with Human, Mouse, Rat.

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}
Calculated MW	24328
Application Details	WB 1:500-1:2000 IHC 1:50-1:200
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: 26N82
Immunogen	A synthesized peptide derived from human NUDT5
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

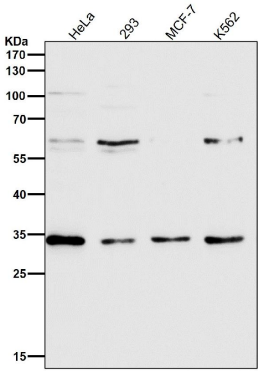
Name	NUDT5 (HGNC:8052)
Function	Enzyme that can either act as an ADP-sugar pyrophosphatase in absence of diphosphate or catalyze the synthesis of ATP in presence of diphosphate

(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).

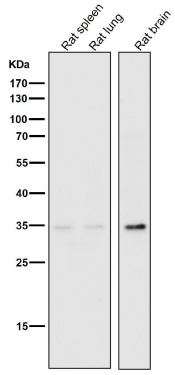
Cellular Location Nucleus.

Tissue Location Widely expressed. Most abundant in liver.

Images

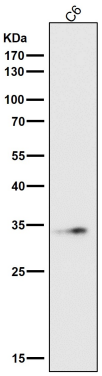


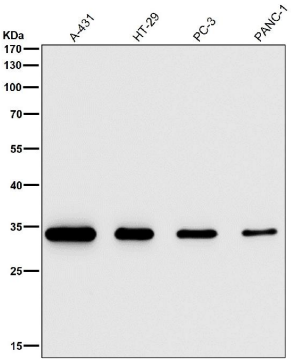
All lanes use the Antibody at 1:2K dilution for 1 hour at room temperature.



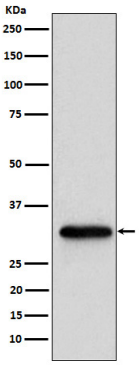
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Western blot analysis of NUDT5 expression in HeLa cell lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.