
Product Name: KD-Validated Nudix Hydrolase 1 Recombinant Rabbit Monoclonal Antibody
Catalog #: KVA01318

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 22.5kDa

Antigen Information

Gene Name	NUDT1 NUDT1; Nudix Hydrolase 1; 7,8-Dihydro-8-Oxoguanine Triphosphatase; Nudix Motif 1; 8-Oxo-DGTPase; MTH1; Nudix (Nucleoside Diphosphate Linked Moiety X)-Type Motif 1; Nucleoside Diphosphate-Linked Moiety X-Type Motif 1; Methylated Purine Nucleoside
Alternative Names	Triphosphate Hydrolase; Oxidized Purine Nucleoside Triphosphate Hydrolase; 8-Oxo-7,8-Dihydrodeoxyguanosine Triphosphatase; Nucleoside Diphosphate-Linked Moiety X Motif 1; 8-Oxo-7,8-Dihydroguanosine Triphosphatase; 2-Hydroxy-DATP Diphosphatase; MutT Human Homolog 1; EC 3.6.1.56; EC 3.6.1.-
Gene ID	4521.0
SwissProt ID	P36639
Immunogen	A synthesized peptide derived from human MTH1

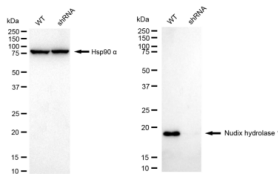
Background

Misincorporation of oxidized nucleoside triphosphates into DNA/RNA during replication and transcription can cause mutations that may result in carcinogenesis or neurodegeneration. The protein encoded by this gene 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. The encoded protein is localized mainly 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. Several alternatively spliced transcript variants, some of which encode distinct isoforms, have been identified. Additional variants have been observed, but their full-length natures have not been determined. A rare single-nucleotide polymorphism that results in the production of an additional, longer isoform (p26) has been described. [provided by RefSeq, Dec 2018]

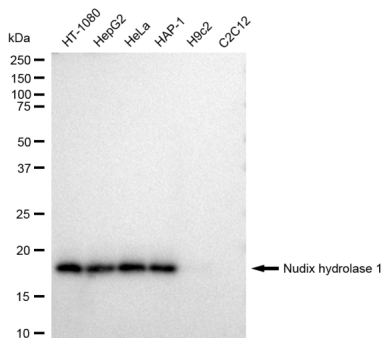
Research Area

Epigenetics and Nuclear Signaling

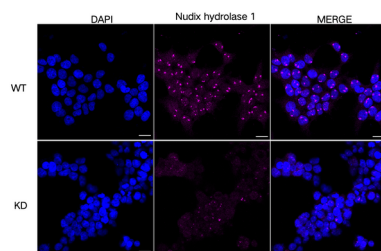
Image Data



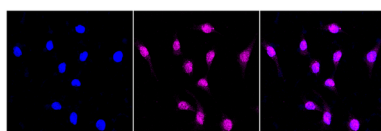
Western blotting analysis using Nudix hydrolase 1 antibody (KVA01318). Nudix hydrolase 1 expression in wild type (WT) and Nudix hydrolase 1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with Nudix hydrolase 1 antibody (KVA01318, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using Nudix hydrolase 1 antibody (KVA01318). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Nudix hydrolase 1 antibody (KVA01318, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.

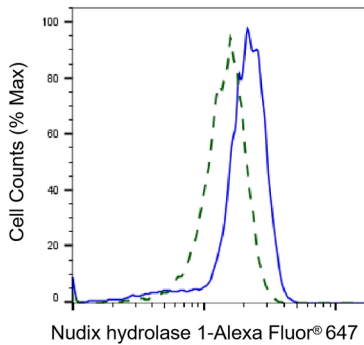


Immunocytochemical staining of HeLa cells using Nudix hydrolase 1 antibody (KVA01318, 1:1,000), Top panel: wild-type (WT); Bottom panel: Nudix hydrolase 1 shRNA knockdown (KD). Nuclei were stained blue with DAPI. Nudix hydrolase 1 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.

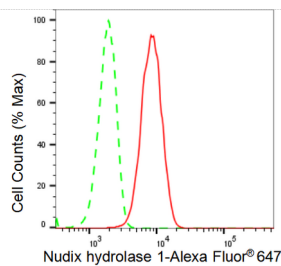


Immunocytochemical staining of HeLa cells with Nudix hydrolase 1 antibody (KVA01318, 1:1,000). Nuclei were stained blue with DAPI; Nudix hydrolase 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.

µm.



Validation of Nudix hydrolase 1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Nudix hydrolase 1 antibody (KVA01318, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Nudix hydrolase 1 expression in HeLa cells using Nudix hydrolase 1 antibody (KVA01318, 1:2,000). Green, isotype control; red, Nudix hydrolase 1.