

Rabbit NUDT21 Polyclonal Antibody | anti-NUDT21 antibody

NUDT21 Antibody

CATALOG # AAA322991	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

NUDT21; Polyclonal Antibody; NUDT21 Antibody; CFIM 25; CFIM25; Cleavage and polyadenylation specific factor 5 25 kD subunit; Cleavage and polyadenylation specific factor 5 25 kDa; Cleavage and polyadenylation specific factor 5; Cleavage and polyadenylation specificity factor 25 kDa subunit; Cleavage and polyadenylation specificity factor subunit 5; Cleavage factor Im complex 25 kDa subunit; CPSF 25; CPSF 25 kDa subunit; CPSF 5; CPSF25; CPSF5; CPSF5_HUMAN; DKFZp686H1588; Nucleoside diphosphate linked moiety X motif 21; Nucleoside diphosphate-linked moiety X motif 21; Nudix (nucleoside diphosphate linked moiety X) type motif 21; Nudix hydrolase 21; Nudix motif 21; NUDT 21; Nudt21; Pre mRNA cleavage factor Im (25kD); Pre mRNA cleavage factor Im 25 kDa subunit; Pre mRNA cleavage factor Im 25kD subunit; Pre-mRNA cleavage factor Im 25 kDa subunit; anti-NUDT21 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	NUDT21 antibody detects endogenous levels of NUDT21.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	227
Applicable Applications for anti-NUDT21 antibody	IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human NUDT21.
Subcellular Location	Nucleus. In punctate subnuclear structures localized adjacent to nuclear speckles, called paraspeckles.
Tissue Specificity	Expressed in the heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Chicken, Xenopus
Similarity	Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)

Western blot analysis of extracts of HeLa cells, using NUDT21 antibody.



IHC (Immunohiostchemistry)

AAA322991 at 1/100 staining Human lung tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)

Western blot analysis of extracts from HepG2, using NUDT21 antibody. Lane 1 was treated with the blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-NUDT21 antibody

Function: Component of the cleavage factor Im (CFIm) complex that functions as an activator of the pre-mRNA 3'-end cleavage and polyadenylation processing required for the maturation of pre-mRNA into functional mRNAs (PubMed:9659921, PubMed:8626397, PubMed:14690600, PubMed:15937220, PubMed:17024186, PubMed:17098938, PubMed:29276085). CFIm contributes to the recruitment of multiprotein complexes on specific sequences on the pre-mRNA 3'-end, so called cleavage and polyadenylation signals (pA signals) (PubMed:9659921, PubMed:8626397, PubMed:14690600, PubMed:17024186). Most pre-mRNAs contain multiple pA signals, resulting in alternative cleavage and polyadenylation (APA) producing mRNAs with variable 3'-end formation (PubMed:17098938, PubMed:23187700, PubMed:29276085). The CFIm complex acts as a key regulator of cleavage and polyadenylation site choice during APA through its binding to 5'-UGUA-3' elements localized in the 3'-untranslated region (UTR) for a huge number of pre-mRNAs (PubMed:17098938, PubMed:20695905, PubMed:29276085). NUDT21/CPSF5 activates indirectly the mRNA 3'-processing machinery by recruiting CPSF6 and/or CPSF7 (PubMed:29276085). Binds to 5'-UGUA-3' elements localized upstream of pA signals that act as enhancers of pre-mRNA 3'-end processing (PubMed:8626397, PubMed:14690600, PubMed:15169763, PubMed:17024186, PubMed:22813749, PubMed:20479262). The homodimer mediates simultaneous sequence-specific recognition of two 5'-UGUA-3' elements within the pre-mRNA (PubMed:20479262, PubMed:21295486). Plays a role in somatic cell fate transitions and pluripotency by regulating widespread changes in gene expression through an APA-dependent function (By similarity). Binds to chromatin (By similarity). Binds to, but does not hydrolyze mono- and di-adenosine nucleotides (PubMed:18445629).

Subunit Structure: Homodimer (via N- and C-terminus); binds RNA as homodimer (PubMed:20695905, PubMed:18445629, PubMed:20479262). Component of the cleavage factor Im (CFIm) complex which is a heterotetramer composed of two subunits of NUDT21/CPSF5 and two subunits of CPSF6 or CPSF7 or an heterodimer of CPSF6 and CPSF7 (PubMed:9659921, PubMed:8626397, PubMed:14561889, PubMed:20695905, PubMed:23187700, PubMed:21295486). The cleavage factor Im (CFIm) complex associates with the CPSF and CSTF complexes to promote the assembly of the core mRNA 3'-processing machinery (PubMed:29276085). Interacts with CPSF6 (via the RRM domain); this interaction is direct and enhances binding to RNA (PubMed:14561889, PubMed:15169763, PubMed:17172643, PubMed:19864460, PubMed:29276085). Interacts with CPSF7 (PubMed:29276085, Ref. 29). Interacts with FIP1L1; this interaction occurs in a RNA sequence-specific manner (PubMed:15937220). Interacts with PABPN1 (PubMed:15169763). Interacts (via N-terminus) with PAPOLA (via C-terminus); this interaction is direct and diminished by acetylation (PubMed:15169763, PubMed:17172643). Interacts with SNRNP70 (PubMed:14561889).

Post-translational Modifications: Acetylated mainly by p300/CBP, recruited to the complex by CPSF6. Acetylation decreases interaction with PAPAO. Deacetylated by the class I/II HDACs, HDAC1, HDAC3 and HDAC10, and by the class III HDACs, SIRT1 AND SIRT2.

Similarity: Belongs to the Nudix hydrolase family. CPSF5 subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	5901926
NCBI GeneID	11051

NCBI Accession #	NP_008937.1
NCBI GenBank Nucleotide #	NM_007006.2
UniProt Accession #	O43809 ; Q6IB85 ; Q6NE84
Molecular Weight	Observed: 26 kDa Predicted: 27 kDa
NCBI Official Full Name	cleavage and polyadenylation specificity factor subunit 5
NCBI Official Synonym Full Names	nudix hydrolase 21
NCBI Official Symbol	NUDT21
NCBI Official Synonym Symbols	CPSF5; CFIM25
NCBI Protein Information	cleavage and polyadenylation specificity factor subunit 5
UniProt Protein Name	Cleavage and polyadenylation specificity factor subunit 5
UniProt Gene Name	NUDT21
UniProt Synonym Gene Names	CPSF 25 kDa subunit; CFIm251 PublicationManual assertion based on opinion iniRef.1; Nudix motif 21

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/nudt21-antibody-immunohistochemistry-western-blot-elisa/322991>