

## Recombinant Mouse Nudt21 Protein, Myc/DDK-tagged

Cat. No. Nudt21-4540M Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Purified recombinant protein of mouse full-length nudix (nucleoside diphosphate linked moiety X)-type motif 21 (Nudt21), with C-terminal MYC/DDK tag, expressed in HEK293T cells.

**Species** Mouse

**Source** HEK293

**Description** 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. 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). Most pre-mRNAs contain multiple pA signals, resulting in alternative cleavage and polyadenylation (APA) producing mRNAs with variable 3'-end formation. 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. NUDT21/CPSF5 activates indirectly the mRNA 3'-processing machinery by recruiting CPSF6 and/or CPSF7. Binds to 5'-UGUA-3' elements localized upstream of pA signals that act as enhancers of pre-mRNA 3'-end processing. The homodimer mediates simultaneous sequence-specific recognition of two 5'-UGUA-3' elements within the pre-mRNA. Plays a role in somatic cell fate transitions and pluripotency by regulating widespread changes in gene expression through an APA-dependent function Binds to chromatin Binds to, but does not hydrolyze mono- and di-adenosine

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	nucleotides.
<b>Molecular Mass</b>	26.2 kDa
<b>Purity</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Stability</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>Storage</b>	Store at -80 centigrade after receiving vials.
<b>Concentration</b>	>50 µg/mL as determined by microplate BCA method
<b>Storage Buffer</b>	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

## GENE INFORMATION

<b>Gene Name</b>	Nudt21 nudix (nucleoside diphosphate linked moiety X)-type motif 21 [ Mus musculus (house mouse) ]
<b>Official Symbol</b>	Nudt21
<b>Synonyms</b>	NUDT21; nudix (nucleoside diphosphate linked moiety X)-type motif 21; cleavage and polyadenylation specificity factor subunit 5; nudix motif 21; nucleoside diphosphate-linked moiety X motif 21; cleavage and polyadenylation specific factor 5, 25 kD subunit; 25kDa; Cpsf5; AU014860; AW549947; 3110048P04Rik; 5730530J16Rik
<b>Gene ID</b>	68219
<b>mRNA Refseq</b>	NM_026623

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**Protein Refseq** NP\_080899

**UniProt ID** Q9CQF3

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