# Recombinant Human NUDT16 Protein, Myc/DDK-tagged, C13 and N15-labeled

**Cat. No.** NUDT16-2326H **Lot. No.** (See product label)

## SPECIFICATION

| | |
|---|---|
| **Product Overview** | NUDT16 MS Standard C13 and N15-labeled recombinant protein (NP_689608) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells. |
| **Species** | Human |
| **Source** | HEK293 |
| **Description** | RNA-binding and decapping enzyme that catalyzes the cleavage of the cap structure of snoRNAs and mRNAs in a metal-dependent manner. Part of the U8 snoRNP complex that is required for the accumulation of mature 5.8S and 28S rRNA. Has diphosphatase activity and removes m7G and/or m227G caps from U8 snoRNA and leaves a 5'monophosphate on the RNA. Catalyzes also the cleavage of the cap structure on mRNAs. Does not hydrolyze cap analog structures like 7-methylguanosine nucleoside triphosphate (m7GpppG). Also hydrolysis m7G- and m227G U3-capped RNAs but with less efficiencies. Has broad substrate specificity with manganese or cobalt as cofactor and can act on various RNA species. Binds to the U8 snoRNA; metal is not required for RNA-binding. May play a role in the regulation of snoRNAs and mRNAs degradation. Acts also as a phosphatase; hydrolyzes the non-canonical purine nucleotides inosine diphosphate (IDP) and deoxyinosine diphosphate (dITP) as well as guanosine diphosphate (GDP), deoxyguanosine diphosphate (dGDP), xanthine diphosphate (XDP), inosine triphosphate (ITP) and deoxyinosine triphosphate (ITP) to their respective monophosphate derivatives and does not distinguish between the deoxy- and ribose |

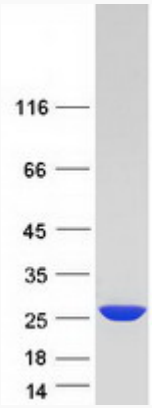
Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

| | |
|---|---|
| | forms. The order of activity with different substrates is IDP > dIDP >> GDP = dGDP > XDP = ITP = dITP. Binds strongly to GTP, ITP and XTP. Participates in the hydrolysis of dIDP/IDP and probably excludes non-canonical purines from RNA and DNA precursor pools, thus preventing their incorporation into RNA and DNA and avoiding chromosomal lesions. |
| **Molecular Mass** | 21.3 kDa |
| **AA Sequence** | MAGARRLELGEALALGSGWRHVCHALLYAPDPGMLFGRIPLRYAILMQMRFDGRLG FPGGFVDTQDRSLEDGLNRELREELGEAAAAFRVERTDYRSSHVGSGPRVVAHFY AKRLTLEELLAVEAGATRAKDHGLEVLGLVRVPLYTLRDGVGGLPTFLENSFIGSARE QLLEALQDLGLLQSGSISGLKIPAHHSGPTRTRPLEQKLISEEDLAANDILDYKDDDD KV |
| **Purity** | > 80% as determined by SDS-PAGE and Coomassie blue staining |
| **Stability** | Stable for 3 months from receipt of products under proper storage and handling conditions. |
| **Storage** | Store at -80 centigrade. Avoid repeated freeze-thaw cycles. |
| **Concentration** | 50 μg/mL as determined by BCA |
| **Storage Buffer** | 100 mM glycine, 25 mM Tris-HCl, pH 7.3. |

## GENE INFORMATION

| | |
|---|---|
| **Gene Name** | NUDT16 nudix hydrolase 16 [ Homo sapiens (human) ] |
| **Official Symbol** | NUDT16 |

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

| | |
|---|---|
| **Synonyms** | NUDT16; nudix (nucleoside diphosphate linked moiety X)-type motif 16; U8 snoRNA-decapping enzyme; FLJ31265; nudix motif 16; U8 snoRNA-binding protein H29K; nucleoside diphosphate-linked moiety X motif 16; FLJ34034; FLJ36248; |
| **Gene ID** | 131870 |
| **mRNA Refseq** | NM_152395 |
| **Protein Refseq** | NP_689608 |
| **MIM** | 617381 |
| **UniProt ID** | Q96DE0 |
| **SDS-PAGE** |  |



Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA