

## Recombinant NSUN5 protein



**Catalog No:** 81173, 81873

**Expressed In:** Baculovirus

**Quantity:** 20, 1000 µg

**Concentration:** 0.3 µg/µl

**Source:** Human

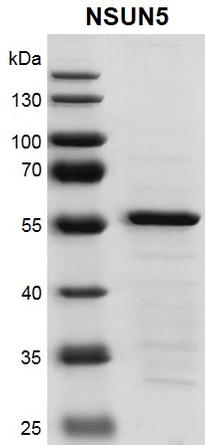
**Buffer Contents:** Recombinant NSUN5 protein is supplied in 25 mM HEPES-NaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, 0.5 mM TCEP.

**Background:** NSUN5 (NOP2/Sun Domain Family, Member 5), also called as NOL1R, is a member of NSUN family. It is a S-adenosyl-L-methionine-dependent methyltransferase that specifically methylates the C(5) position of cytosine 3782 in 28S rRNA.

**Protein Details:** Recombinant NSUN5 protein was expressed in a baculovirus expression system as the full length protein (accession number NP\_683759.1) with an N-terminal FLAG tag. The molecular weight of the protein is 52.1 kDa.

**Application Notes:** This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for a given product is shown on the lot-specific Technical Data Sheet.

**Storage and Guarantee:** Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.

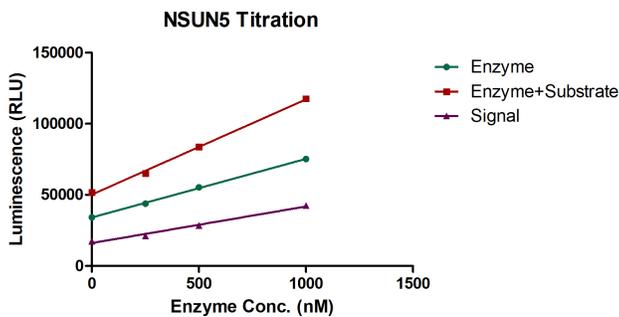


**Recombinant NSUN5 protein**

10% SDS-PAGE Coomassie staining

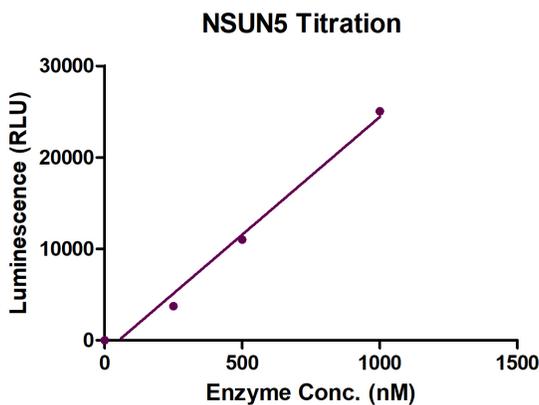
MW: 52.1 kDa

Purity: >85%



**MTase-Glo assay for NSUN5 methyltransferase activity**

400 ng total RNA and 1  $\mu$ M SAM was incubated with different concentrations of NSUN5 protein in 8  $\mu$ l reaction system containing 50 mM Tris-HCl pH 8.6, 0.02% Triton X -100, 2 mM MgCl<sub>2</sub>, 1 mM TCEP at room temperature for 1 hour (0.2 U/ $\mu$ L RRI was added in this system). 5 $\times$ MTase-Glo Reagent was added to the products and incubated for 30 min. Then MTase-Glo Detection was added, and luminescence was read after another 30 min incubation.



**MTase-Glo assay for NSUN5 methyltransferase activity**

400 ng total RNA and 1  $\mu$ M SAM was incubated with different concentrations of NSUN5 protein in 8  $\mu$ l reaction system containing 50 mM Tris-HCl pH 8.6, 0.02% Triton X -100, 2 mM MgCl<sub>2</sub>, 1 mM TCEP at room temperature for 1 hour (0.2 U/ $\mu$ L RRI was added in this system). 5 $\times$ MTase-Glo Reagent was added to the products and incubated for 30 min. Then MTase-Glo Detection was added, and luminescence was read after another 30 min incubation.