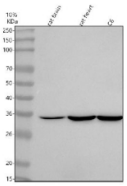
NTMT2 Antibody / N-terminal methyltransferase 2 (FY12885)

Catalog No.	Formulation	Size
FY12885	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q5VVY1
Applications	Western Blot: 0.25-0.5ug/ml ELISA: 0.1-0.5ug/ml
Limitations	This NTMT2 antibody is available for research use only.



Western blot analysis of NTMT2 using anti-NTMT2 antibody. Lane 1: rat brain tissue lysates, Lane 2: rat heart tissue lysates, Lane 3: rat C6 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-NTMT2 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. A specific band was detected for NTMT2 at approximately 32 kDa. The expected molecular weight of NTMT2 is ~32 kDa.

Description

NTMT2 antibody detects Protein N-terminal methyltransferase 2, an enzyme responsible for alpha-N-terminal methylation of proteins involved in chromatin organization, DNA repair, and transcriptional regulation. Encoded by the NTMT2 gene on chromosome 21q21.3, this enzyme belongs to the class I S-adenosylmethionine (SAM)-dependent methyltransferase family and acts in conjunction with its homolog NTMT1 to modify the alpha-amino group of N-terminal residues.

NTMT2-mediated methylation contributes to protein stability, localization, and interaction dynamics in the nucleus and cytoplasm.

Structurally, NTMT2 is an approximately 32 kilodalton enzyme localized primarily to the nucleus, where it targets proteins containing an N-terminal X-Pro-Lys motif for mono-, di-, or trimethylation. It possesses a conserved methyltransferase catalytic domain that binds SAM as a methyl donor and a flexible substrate recognition pocket that determines sequence specificity. Through these enzymatic properties, NTMT2 regulates key nuclear processes, including chromatin compaction and DNA damage signaling.

The NTMT2 antibody is widely used in epigenetics, molecular biology, and proteomics research to study protein methylation, nuclear regulation, and post-translational modification networks. Western blot analysis identifies a 32 kilodalton band corresponding to NTMT2, while immunofluorescence reveals strong nuclear and nucleolar localization consistent with its methyltransferase function. This antibody provides a robust reagent for quantifying NTMT2 expression and exploring its role in gene regulation and chromatin state control.

Functionally, NTMT2 catalyzes the methylation of numerous substrates, including centromere-associated proteins and chromatin regulators, influencing their stability and recruitment to DNA-binding complexes. It works in coordination with NTMT1 to maintain proper levels of N-terminal methylation, essential for genomic stability and cell proliferation. Dysregulation of NTMT2 expression has been linked to cancer, where altered methylation affects DNA repair and transcriptional reprogramming. The NTMT2 antibody supports mechanistic studies of post-translational modification systems and their contribution to epigenetic control and cellular differentiation. NSJ Bioreagents provides this antibody validated for its applications, ensuring accurate detection in methylation and nuclear signaling research.

Application Notes

Optimal dilution of the NTMT2 antibody should be determined by the researcher.

Immunogen

E.coli-derived human NTMT2 recombinant protein (Position: M1-S283) was used as the immunogen for the NTMT2 antibody.

Storage

After reconstitution, the NTMT2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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