

NMT2 (30): sc-136005

BACKGROUND

N-terminal myristoylation is a cotranslational lipid modification, which is crucial for the targeting and function of many signaling proteins. The N-myristoyltransferases, NMT1 and NMT2, also known as glycopeptide N-tetradecanoyltransferases, are cytoplasmic proteins that belong to the NMT family of proteins. The proteins in this family catalyze the addition of a myristoyl group to the N-terminal glycine residue of eukaryotic, fungal and viral proteins. They are primarily detected in heart, gut, kidney, liver and placenta.

REFERENCES

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- Weston, S.A., et al. 1998. Crystal structure of the anti-fungal target N-myristoyl transferase. *Nat. Struct. Biol.* 5: 213-221.
- Rajala, R.V., et al. 2002. Altered expression and localization of N-myristoyltransferase in experimentally induced rat model of ischemia-reperfusion. *J. Cell. Biochem.* 86: 509-519.
- Selvakumar, P., et al. 2004. Expression of methionine aminopeptidase 2, N-myristoyltransferase, and N-myristoyltransferase inhibitor protein 71 in HT29. *Biochem. Biophys. Res. Commun.* 322: 1012-1017.
- Sharma, R.K. 2004. Potential role of N-myristoyltransferase in pathogenic conditions. *Can. J. Physiol. Pharmacol.* 82: 849-859.
- Lu, Y., et al. 2005. Expression of N-myristoyltransferase in human brain tumors. *Neurochem. Res.* 30: 9-13.
- Yang, S.H., et al. 2005. N-myristoyltransferase 1 is essential in early mouse development. *J. Biol. Chem.* 280: 18990-18995.
- Price, H.P., et al. 2005. Functional analysis of TbARL1, an N-myristoylated Golgi protein essential for viability in bloodstream trypanosomes. *J. Cell Sci.* 118: 831-841.
- Pasha, M.K., et al. 2005. Increased myocardial N-myristoyltransferase activity in rotenone model of Parkinsonism. *Int. J. Mol. Med.* 15: 987-991.

CHROMOSOMAL LOCATION

Genetic locus: NMT2 (human) mapping to 10p13.

SOURCE

NMT2 (30) is a mouse monoclonal antibody raised against amino acids 10-119 of NMT2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

NMT2 (30) is recommended for detection of NMT2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for NMT2 siRNA (h): sc-61134, NMT2 shRNA Plasmid (h): sc-61134-SH and NMT2 shRNA (h) Lentiviral Particles: sc-61134-V.

Molecular Weight of NMT2: 60 kDa.

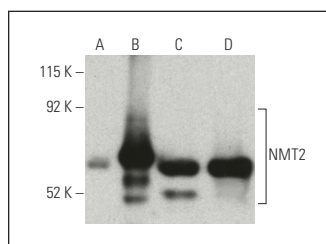
Positive Controls: NMT2 (h2): 293T Lysate: sc-172790, ES-2 cell lysate: sc-24674 or HUV-EC-C whole cell lysate: sc-364180.

RECOMMENDED SUPPORT REAGENTS

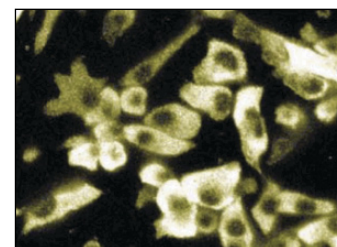
To ensure optimal results, the following support reagents are recommended:

- Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



NMT2 (30): sc-136005. Western blot analysis of NMT2 expression in non-transfected 293T: sc-117752 (A), human NMT2 transfected 293T: sc-172790 (B), HUV-EC-C (C) and ES-2 (D) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



NMT2 (30): sc-136005. Immunofluorescence staining of ES2 cells showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

- Kosciuk, T., et al. 2020. NMT1 and NMT2 are lysine myristoyltransferases regulating the ARF6 GTPase cycle. *Nat. Commun.* 11: 1067.
- Zhang, T., et al. 2022. N-myristoyltransferase 1 and 2 are potential tumor suppressors and novel targets of miR-182 in human non-small cell lung carcinomas. *Lung Cancer* 171: 70-81.
- Soupe, E., et al. 2022. Dual role of ACBD6 in the acylation remodeling of lipids and proteins. *Biomolecules* 12: 1726.

RESEARCH USE

For research use only, not for use in diagnostic procedures. Not for resale.