

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human METTL3.
Source	Monoclonal Mouse IgG ₁ Clone # 1075034
Purification	Protein A or G purified
Immunogen	METTL3 containing Synthetic Peptide Accession # Q86U44
Conjugate	Alexa Fluor Plus 405 Excitation Wavelength: 404 nm Emission Wavelength: 455 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

DATA

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

METTL3 is a 70 kDa subunit and is the sole catalytic subunit in the methyltransferase complex which catalyzes N6-methyladenosine. N6-methyladenosine is the most abundant mRNA modification. The full-length METTL3 protein consists of 580 amino acids. METTL3 plays a key role in a variety of cancers and expression is dysregulated via different mechanisms. It plays a critical role in tumorigenesis, tumor growth, metastasis, metabolic reprogramming, immune cell infiltration, and tumor drug resistance. METTL3 can be an oncogene through depositing m6A modifications on critical transcripts. In some cases, it can also be a tumor suppressor possibly by promoting cell cycle arrest in the G1 phase.

References:

- Zeng C, Huang W, Li Y, Weng H. Roles of METTL3 in cancer: mechanisms and therapeutic targeting. *J Hematol Oncol.* 2020 Aug 27;13(1):117. doi: 10.1186/s13045-020-00951-w. PMID: 32854717; PMCID: PMC7457244.
- Jin Q, Qu H, Quan C. New insights into the regulation of METTL3 and its role in tumors. *Cell Commun Signal.* 2023 Nov 23;21(1):334. doi: 10.1186/s12964-023-01360-5. PMID: 37996892; PMCID: PMC10732098.

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