

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human METTL3.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 1075034
<b>Purification</b>	Protein A or G purified
<b>Immunogen</b>	METTL3 containing Synthetic Peptide Accession # Q86U44
<b>Conjugate</b>	Alexa Fluor Plus 594 Excitation Wavelength: 590 nm Emission Wavelength: 618 nm
<b>Formulation</b>	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.

<b>Immunocytochemistry</b>	Optimal dilution of this antibody should be experimentally determined.
<b>Immunohistochemistry</b>	Optimal dilution of this antibody should be experimentally determined.

#### DATA

#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	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.

#### PRODUCT SPECIFIC NOTICES

This product is provided under an intellectual property license from Life Technologies Corporation. The transfer of this product is conditioned on the buyer using the purchased product solely in research conducted by the buyer, excluding contract research or any fee for service research, and the buyer must not (1) use this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; or (c) manufacturing or quality assurance or quality control, and/or (2) sell or transfer this product or its components for resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or [outlicensing@thermofisher.com](mailto:outlicensing@thermofisher.com).