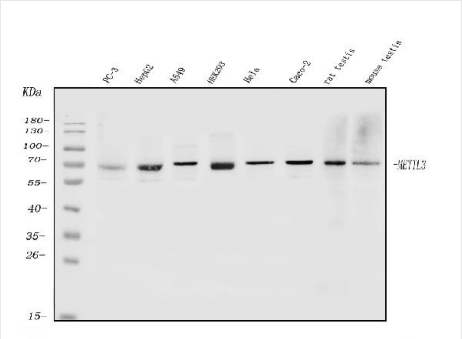
METTL3 Antibody – Rabbit Polyclonal

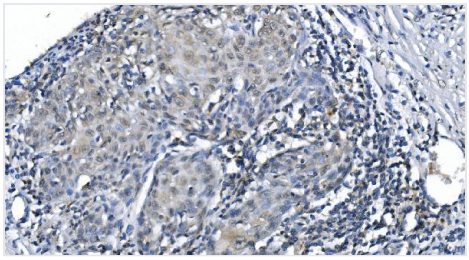
PRODUCT OVERVIEW

Product Name	METTL3, Polyclonal Antibody
Full Product Name	Anti-METTL3 Antibody
Product Gene Name	anti-METTL3 antibody
Product Synonym Names	N6-adenosine-methyltransferase catalytic subunit; methyltransferase like 3
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.005mg NaN3.
Purity/Purification	Immunogen affinity purified.
Specificity	Rabbit IgG polyclonal antibody for METTL3 detection.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.
Molecular Weight	25,479 Da
OMIM	612472
3D Structure	ModBase 3D Structure for Q86U44
Immunogen	E Coli-derived human METTL3 recombinant protein (Position: E71-L580).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems||Lab recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (MBS176460) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (MBS176453) for IHC(P) and ICC.
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-METTL3 antibody	Western Blot (WB), Immunohistochemistry-Paraffin (IHC-P), Immunocytochemistry (ICC), Immunofluorescence (IF), Flow Cytometry (FC/FACS/FCM), Direct ELISA (EIA)
Application Notes for anti-METTL3 antibody	WB: 0.25-0.5ug/ml|Human, Mouse, Rat| IHC-P: 2-5ug/ml|Human, Mouse, Rat| ICC/IF: 5ug/ml|Human| FC/FACS/FCM: 1-3ug/1x106 cells|Human| Direct ELISA: 0.1-0.5ug/ml|Human|
Related Product Information for anti-METTL3 antibody	N6-adenosine-methyltransferase 70 kDa subunit (METTL3) is an enzyme that in humans is encoded by the METTL3 gene. It is mapped to 14q11. 2. This gene encodes the 70 kDa subunit of MT-A which is part of N6-adenosine-methyltransferase. This enzyme is involved in the posttranscriptional methylation of internal adenosine residues in eukaryotic mRNAs, forming N6-methyladenosine.

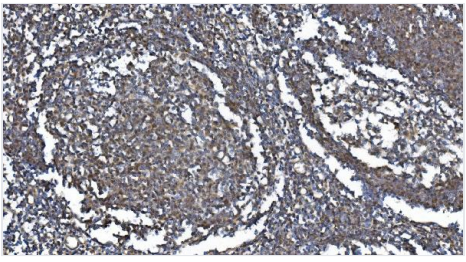
Product References and Citations for anti-METTL3 antibody	1. Alarcon, C. R., Lee, H., Goodarzi, H., Halberg, N., Tavazoie, S. F. N(6)-methyladenosine marks primary microRNAs for processing. Nature 519: 482-485, 2015. 2. Barbieri, I., Tzelepis, K., Pandolfini, L., Shi, J., Millan-Zambrano, G., Robson, S. C., Aspris, D., Migliori, V., Bannister, A. J., Han, N., De Braekeleer, E., Ponstingl, H., Hendrick, A., Vakoc, C. R., Vassiliou, G. S., Kouzarides, T. Promoter-bound METTL3 maintains myeloid leukaemia by m(6)A-dependent translation control. Nature 552: 126-131, 2017. 3. Bujnicki, J. M., Feder, M., Radlinska, M., Blumenthal, R. M. Structure prediction and phylogenetic analysis of a functionally diverse family of proteins homologous to the MT-A70 subunit of the human mRNA:m6A methyltransferase. J. Molec. Evol. 55: 431-444, 2002.
Other Notes	Small volumes of anti-METTL3 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for METTL3 purchase	MBS1753459 is an antibody targeting METTL3. Reactive in Human, Mouse, Rat. Host: Rabbit.



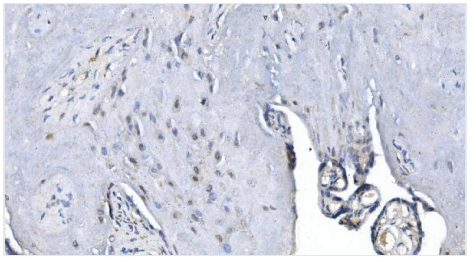
Western Blot (WB) of anti-METTL3 antibody
Figure 1. Western blot analysis of METTL3 using anti-METTL3 antibody (MBS1753459).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: human PC-3 whole cell lysatesLane 2: human HEPG2 whole cell lysatesLane 3: human A549 whole cell lysatesLane 4: human HEK293 whole cell lysatesLane 5: human HELA whole cell lysatesLane 6: human CACO-2 whole cell lysatesLane 7: rat testis tissue lysatesLane 8: mouse testis tissue lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-METTL3 antigen affinity purified polyclonal antibody (Catalog # MBS17534591) at 0. 5 ?g/mL overnight at 4 degree C, 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 is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # MBS176460) with Tanon 5200 system. A specific band was detected for METTL3 at approximately 64KD. The expected band size for METTL3 is at 64KD.



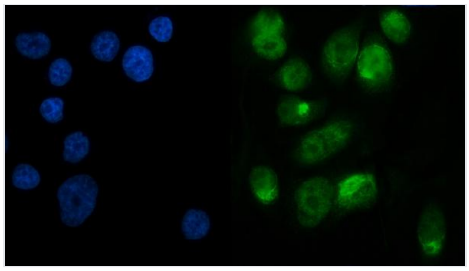
Immunohistochemistry (IHC) of anti-METTL3 antibody
Figure 2. IHC analysis of METTL3 using anti-METTL3 antibody (MBS1753459).METTL3 was detected in paraffin-embedded section of human esophageal squamous carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2?g/ml rabbit anti-METTL3 Antibody (MBS1753459) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # MBS176451) with DAB as the chromogen.



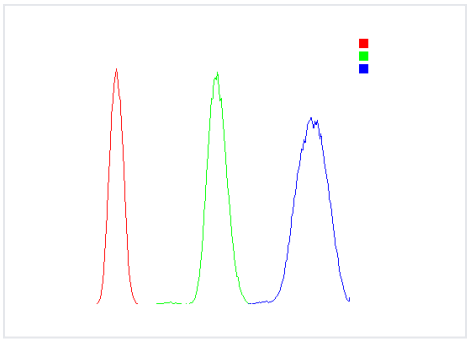
Immunohistochemistry (IHC) of anti-METTL3 antibody
Figure 3 IHC analysis of METTL3 using anti-METTL3 antibody (MBS1753459).METTL3 was detected in paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2? g/ml rabbit anti-METTL3 Antibody (MBS1753459) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # MBS176451) with DAB as the chromogen.



Immunohistochemistry (IHC) of anti-METTL3 antibody
Figure 4 IHC analysis of METTL3 using anti-METTL3 antibody (MBS1753459).METTL3 was detected in paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2? g/ml rabbit anti-METTL3 Antibody (MBS1753459) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # MBS176451) with DAB as the chromogen.



Immunofluorescence (IF) of anti-METTL3 antibody
Figure 5. IF analysis of METTL3 using anti- METTL3 antibody (MBS1753459).METTL3 was detected in immunocytochemical section of PC-3 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (MBS176582) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5?g/mL rabbit anti- METTL3 Antibody (MBS1753459) overnight at 4 degree C. DyLight®488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry (FC/FACS) of anti-METTL3 antibody
Figure 6. Flow Cytometry analysis of HL-60 cells using anti-METTL3 antibody (MBS1753459).Overlay histogram showing HL-60 cells stained with MBS1753459 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-METTL3 Antibody (MBS1753459, 1?g/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10?g/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1?g/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for METTL3. It may not necessarily be applicable to this product.

NCBI GI #	21361827
NCBI GeneID	56339
NCBI Accession #	NP_062826
UniProt Primary Accession #	Q86U44
UniProt Secondary Accession #	O14736; Q86V05; Q9HB32
UniProt Related Accession #	Q86U44
GenBank Nucleotide #	NM_019852
NCBI Official Full Name	N6-adenosine-methyltransferase 70 kDa subunit
NCBI Official Synonym Full Names	methyltransferase like 3
NCBI Official Symbol	METTL3
NCBI Official Synonym Symbols	M6A; IME4; Spo8; MT-A70
UniProt Protein Name	N6-adenosine-methyltransferase 70 kDa subunit
UniProt Synonym Protein Names	Methyltransferase-like protein 3
Protein Family	N6-adenosine-methyltransferase
UniProt Gene Name	METTL3
UniProt Synonym Gene Names	MTA70; MT-A70
UniProt Entry Name	MTA70_HUMAN
NCBI Protein Information	N6-adenosine-methyltransferase 70 kDa subunit; adoMet-binding subunit of the human mRNA (N6-adenosine)-methyltransferase; mRNA (2'-O-methyladenosine-N(6)-)-methyltransferase; mRNA m(6)A methyltransferase; methyltransferase-like protein 3
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