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## **METTL 3**

Cat.No. 417 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

## **Data Sheet**

Reconstitution/ Storage	50 $\mu$ g specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 $\mu$ l H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 AP-staining IP: not tested yet ICC: 1 : 500 IHC: not tested yet IHC-P/FFPE: not tested yet
Immunogen	Recombinant protein corresponding to AA 2 to 118 from mouse METTL3 (UniProt Id: Q8C3P7)
Reactivity	Reacts with: mouse (Q8C3P7), human (Q86U44). Other species not tested yet.
Specificity	Specific for isoform 1 (K.D. verified)

## TO BE USED IN VITRO / FOR RESEARCH ONLY NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

The **METTL3**-METTL14 heterodimer forms a N6-methyltransferase complex that methylates adenosine residues of RNAs at the 5'-[AG]GAC-3' consensus sites. N6-methyladenosine (m6A) has been shown to function as an important regualtory element in many processes like the circadian clock, differentiation of embryonic stem cells, primary miRNA processing, mRNA splicing, translation efficiency, mRNA editing and stability.

## **Selected General References**

m(6)A RNA modification controls cell fate transition in mammalian embryonic stem cells. Batista PJ, Molinie B, Wang J, Qu K, Zhang J, Li L, Bouley DM, Lujan E, Haddad B, Daneshvar K, Carter AC, et al. Cell stem cell (2014) 15(6): 707-19.

The m(6)A Methyltransferase METTL3 Promotes Translation in Human Cancer Cells. Lin S, Choe J, Du P, Triboulet R, Gregory RI Molecular cell (2016) 62(3): 335-345.

Structural basis of N(6)-adenosine methylation by the METTL3-METTL14 complex. Wang X, Feng J, Xue Y, Guan Z, Zhang D, Liu Z, Gong Z, Wang Q, Huang J, Tang C, Zou T, et al. Nature (2016) 534(7608): 575-8.

N6-methyladenosine modification destabilizes developmental regulators in embryonic stem cells. Wang Y, Li Y, Toth JI, Petroski MD, Zhang Z, Zhao JC Nature cell biology (2014) 16(2): 191-8.

A METTL3-METTL14 complex mediates mammalian nuclear RNA N6-adenosine methylation. Liu J, Yue Y, Han D, Wang X, Fu Y, Zhang L, Jia G, Yu M, Lu Z, Deng X, Dai Q, et al. Nature chemical biology (2014) 10(2): 93-5.

RNA-methylation-dependent RNA processing controls the speed of the circadian clock. Fustin JM, Doi M, Yamaguchi Y, Hida H, Nishimura S, Yoshida M, Isagawa T, Morioka MS, Kakeya H, Manabe I, Okamura H, et al. Cell (2013) 155(4): 793-806.