

产品名称: FTO (19W13) Rabbit Monoclonal Antibody
产品货号: AMRe11173



产品概述 (Summary)

产品名称 (Production Name)	FTO (19W13) Rabbit Monoclonal Antibody
描述 (Description)	Recombinant rabbit monoclonal antibody
宿主 (Host)	Rabbit
应用 (Application)	WB,IHC,IF-P
种属反应性 (Reactivity)	Human

产品性能 (Performance)

偶联物 (Conjugation)	Unconjugated
修饰 (Modification)	Unmodified
同种型 (Isotype)	IgG
克隆 (Clonality)	Monoclonal
形式 (Form)	Liquid
存放说明 (Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液 (Buffer)	Supplied in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% New type preservative N and 0.05% protective protein.
纯化方式 (Purification)	Affinity purification

免疫原信息 (Immunogen)

基因名 (Gene Name)	FTO
别名 (Alternative Names)	ALKBH9; Fto; GDFD; Protein fatso;
基因 ID (Gene ID)	79068.0
蛋白 ID (SwissProt ID)	Q9C0B1.A synthetic peptide of human FTO

产品应用 (Application)

稀释比 (Dilution Ratio)	WB 1:500-1:2000,IHC 1:20-1:100,IF-P 1:20-1:50
蛋白分子量 (Molecular Weight)	58kDa

研究背景 (Background)

Dioxygenase that repairs alkylated DNA and RNA by oxidative demethylation. Has highest activity towards single-stranded

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RNA containing 3-methyluracil, followed by single-stranded DNA containing 3-methylthymine. RNA demethylase that mediates oxidative demethylation of different RNA species, such as mRNAs, tRNAs and snRNAs, and acts as a regulator of fat mass, adipogenesis and energy homeostasis (PubMed: [22002720](http://www.uniprot.org/citations/22002720)), PubMed: [26458103](http://www.uniprot.org/citations/26458103), PubMed: [28002401](http://www.uniprot.org/citations/28002401), PubMed: [30197295](http://www.uniprot.org/citations/30197295), PubMed: [26457839](http://www.uniprot.org/citations/26457839), PubMed: [25452335](http://www.uniprot.org/citations/25452335)). Specifically demethylates N(6)-methyladenosine (m6A) RNA, the most prevalent internal modification of messenger RNA (mRNA) in higher eukaryotes (PubMed: [22002720](http://www.uniprot.org/citations/22002720), PubMed: [26458103](http://www.uniprot.org/citations/26458103), PubMed: [30197295](http://www.uniprot.org/citations/30197295), PubMed: [26457839](http://www.uniprot.org/citations/26457839), PubMed: [25452335](http://www.uniprot.org/citations/25452335)). M6A demethylation by FTO affects mRNA expression and stability (PubMed: [30197295](http://www.uniprot.org/citations/30197295)). Also able to demethylate m6A in U6 small nuclear RNA (snRNA) (PubMed: [30197295](http://www.uniprot.org/citations/30197295)). Mediates demethylation of N(6),2'-O-dimethyladenosine cap (m6A(m)), by demethylating the N(6)-methyladenosine at the second transcribed position of mRNAs and U6 snRNA (PubMed: [28002401](http://www.uniprot.org/citations/28002401), PubMed: [30197295](http://www.uniprot.org/citations/30197295)). Demethylation of m6A(m) in the 5'-cap by FTO affects mRNA stability by promoting susceptibility to decapping (PubMed: [28002401](http://www.uniprot.org/citations/28002401)). Also acts as a tRNA demethylase by removing N(1)-methyladenine from various tRNAs (PubMed: [30197295](http://www.uniprot.org/citations/30197295)). Has no activity towards 1-methylguanine (PubMed: [20376003](http://www.uniprot.org/citations/20376003)). Has no detectable activity towards double-stranded DNA (PubMed: [20376003](http://www.uniprot.org/citations/20376003)). Also able to repair alkylated DNA and RNA by oxidative demethylation: demethylates single-stranded RNA containing 3-methyluracil, single-stranded DNA containing 3-methylthymine and has low demethylase activity towards single-stranded DNA containing 1-methyladenine or 3-methylcytosine (PubMed: [18775698](http://www.uniprot.org/citations/18775698), PubMed: [20376003](http://www.uniprot.org/citations/20376003)). Ability to repair alkylated DNA and RNA is however unsure in vivo (PubMed: [18775698](http://www.uniprot.org/citations/18775698), PubMed: [20376003](http://www.uniprot.org/citations/20376003)). Involved in the regulation of fat mass, adipogenesis and body weight, thereby contributing to the regulation of body size and body fat accumulation (PubMed: [18775698](http://www.uniprot.org/citations/18775698), PubMed: [18775698](http://www.uniprot.org/citations/18775698)).

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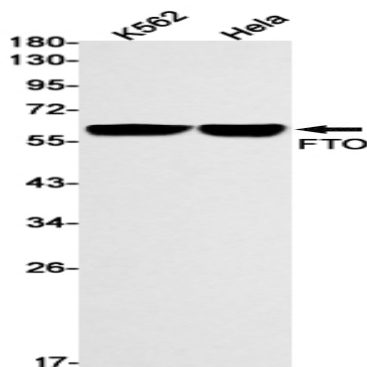


<http://www.uniprot.org/citations/20376003> target="_blank">20376003). Involved in the regulation of thermogenesis and the control of adipocyte differentiation into brown or white fat cells (PubMed:26287746). Regulates activity of the dopaminergic midbrain circuitry via its ability to demethylate m6A in mRNAs (By similarity). Plays an oncogenic role in a number of acute myeloid leukemias by enhancing leukemic oncogene-mediated cell transformation: acts by mediating m6A demethylation of target transcripts such as MYC, CEBPA, ASB2 and RARA, leading to promote their expression (PubMed:28017614, PubMed:29249359).

研究领域 (Research Area)

Neuroscience

图片 (Image Data)



Western blot detection of FTO in K562, HeLa cell lysates using FTO antibody (1:1000 diluted).

注意事项 (Note)

For research use only .