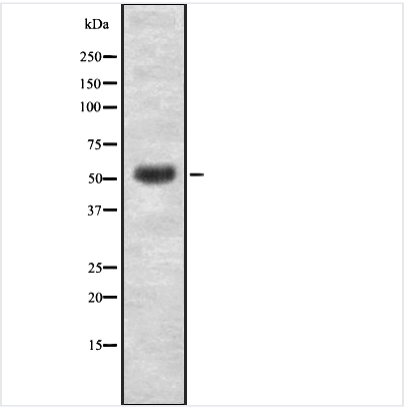
FTO Antibody

PRODUCT OVERVIEW

Product Name	FTO, Antibody
Full Product Name	FTO Antibody
Product Gene Name	anti-FTO antibody
Molecular Weight	12,218 Da
OMIM	601665
3D Structure	ModBase 3D Structure for Q9C0B1
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for anti-FTO antibody	MBS8517579 is an antibody targeting FTO. Also known as FTO Antibody.
Other Notes	Small volumes of anti-FTO 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.



Western Blot (WB) of anti-FTO antibody
Western blot analysis FTO using Jurkat whole cell lysates

ADDITIONAL DETAILS

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

NCBI GI #	122937263
NCBI GeneID	79068
NCBI Accession #	NP_001073901.1
UniProt Primary Accession #	Q9C0B1
UniProt Secondary Accession #	Q0P676; Q7Z785; A2RUH1; B2RNS0
UniProt Related Accession #	Q9C0B1
GenBank Nucleotide #	NM_001080432.2
NCBI Official Full Name	alpha-ketoglutarate-dependent dioxygenase FTO

NCBI Official Synonym Full Names	FTO, alpha-ketoglutarate dependent dioxygenase
NCBI Official Symbol	FTO
NCBI Official Synonym Symbols	GDFD; ALKBH9; BMIQ14
UniProt Protein Name	Alpha-ketoglutarate-dependent dioxygenase FTO
UniProt Synonym Protein Names	Fat mass and obesity-associated protein
Protein Family	Alpha-ketoglutarate-dependent dioxygenase
UniProt Gene Name	FTO
UniProt Synonym Gene Names	KIAA1752
NCBI Protein Information	alpha-ketoglutarate-dependent dioxygenase FTO
NCBI Summary for FTO	This gene is a nuclear protein of the AlkB related non-haem iron and 2-oxoglutarate-dependent oxygenase superfamily but the exact physiological function of this gene is not known. Other non-heme iron enzymes function to reverse alkylated DNA and RNA damage by oxidative demethylation. Studies in mice and humans indicate a role in nervous and cardiovascular systems and a strong association with body mass index, obesity risk, and type 2 diabetes. [provided by RefSeq, Jul 2011]
UniProt Comments for FTO	Dioxygenase that repairs alkylated DNA and RNA by oxidative demethylation. Has highest activity towards single-stranded RNA containing 3-methyluracil, followed by single-stranded DNA containing 3-methylthymine. Has low demethylase activity towards single-stranded DNA containing 1-methyladenine or 3-methylcytosine (PubMed:18775698, PubMed:20376003). Specifically demethylates N6-methyladenosine (m6A) RNA, the most prevalent internal modification of messenger RNA (mRNA) in higher eukaryotes (PubMed:22002720, PubMed:26458103). Has no activity towards 1-methylguanine. Has no detectable activity towards double-stranded DNA. Requires molecular oxygen, alpha-ketoglutarate and iron. Contributes to the regulation of the global metabolic rate, energy expenditure and energy homeostasis. Contributes to the regulation of body size and body fat accumulation (PubMed:18775698, PubMed:20376003). In particular, it is involved in the regulation of thermogenesis and the control of adipocyte differentiation into brown or white fat cells (PubMed:26287746).
Research Articles on FTO	**1.** The aggregation analysis revealed a higher correlation between siblings than between parent-offspring pairs representing the role of genetic factors in metabolic syndrome (MetS). In addition, the conditional logistic model with covariates showed that the linkage results between HDL_C and three markers, FTO (rs1558902 and rs7202116) and CETP(rs1864163) were significant.
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