



FTO Monoclonal Antibody

Catalog No	YP-mAb-04298
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	FTO
Immunogen	The antiserum was produced against synthesized peptide derived from human FTO. AA range:19-68
Specificity	FTO Monoclonal Antibody detects endogenous levels of FTO protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	KIAA1752;FTO;Alpha-ketoglutarate-dependent dioxygenase FTO;Fat mass and obesity-associated protein
Observed Band	58kD
Calculated Molecular Weight	58kD
Cell Pathway	Nucleus . Nucleus speckle . Cytoplasm . Localizes mainly in the nucleus, where it is able to demethylate N(6)-methyladenosine (m6A) and N(6),2'-O-dimethyladenosine cap (m6A(m)) in U6 small nuclear RNA (snRNA), N(1)-methyladenine from tRNAs and internal m6A in mRNAs (PubMed:30197295). In the cytoplasm, mediates demethylation of m6A and m6A(m) in mRNAs and N(1)-methyladenine from tRNAs (PubMed:30197295). .
Tissue Specificity	Ubiquitously expressed, with relatively high expression in adrenal glands and brain; especially in hypothalamus and pituitary (PubMed:17434869, PubMed:17496892). Highly expressed in highly expressed in acute myeloid leukemias (AML) with t(11;11)(q23;23) with KMT2A/MLL1 rearrangements, t(15;17)(q21;q21)/PML-RARA, FLT3-ITD, and/or NPM1 mutations (PubMed:28017614).



Function

function:The precise function of this protein remains to be determined.,
polymorphism:At least one intronic variation within the gene predisposes to childhood and adult obesity.,similarity:Belongs to the fto family.,tissue specificity:Ubiquitously expressed, with relatively high expression in adrenal glands and brain; especially in hypothalamus and pituitary.,

Background

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],

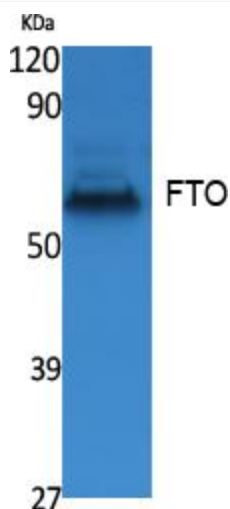
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis of various cells using FTO Monoclonal Antibody