

FTO Rabbit monoclonal antibody

Catalog: MB66346

Host: Rabbit

Reactivity: Human

BackGround:

FTO (fat mass and obesity-associated protein) is the first obesity gene product identified by genome-wide association studies and it is associated with the largest effect size for this class of proteins. Multiple single-nucleotide polymorphisms (SNPs) in the first intron of the FTO gene have been associated with increased body weight and obesity. Further studies reported that FTO risk alleles were associated with an increase in energy intake, a reduction of activity, and possibly an increased daily fat intake. FTO is a DNA and RNA demethylase that catalyzes the oxidative demethylation of thymidine and uracil. Among its targets is an mRNA subset involved in regulation of learning, reward behavior, motor functions, and feeding. Loss of the FTO gene in mice leads to postnatal growth retardation and a significant reduction in adipose tissue. Mice deficient in the FTO gene have lean body mass due to increased energy expenditure and systemic activation of sympathetic neurons, while overexpression of FTO in mice leads to increased food intake and results in obesity. These results demonstrate that FTO is functionally involved in energy homeostasis.

Product:

Liquid in 50mM Tris-Glycine (pH 7.4), 0.15M NaCl, 50% Glycerol, 0.01% Sodium azide and 0.05% BSA.

Molecular Weight:

~ 60 kDa

Swiss-Prot:

Q9C0B1

Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/100), IF/ICC (1/50 - 1/100)

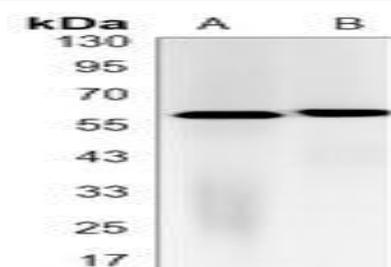
Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

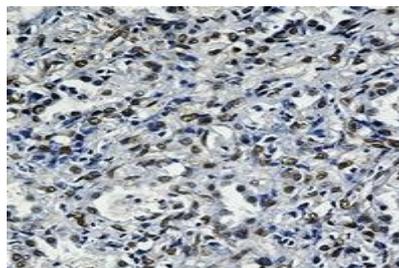
Specificity:

Recognizes endogenous levels of FTO protein.

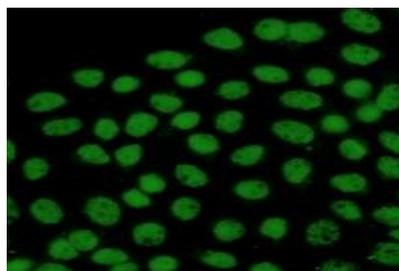
DATA:



Western blot analysis of FTO expression in HeLa (A), Jurkat (B) whole cell lysates.



Immunohistochemical analysis of FTO staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.82). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of FTO staining in HeLa cells. Forma-

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PRODUCT DATA SHEET

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lin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells

were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark.

Note:

For research use only, not for use in diagnostic procedure.

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