

#M30141

FTO (2F8)

Mouse mAb

- 50 µl (25 Western mini-blot)
- 100 µl (50 Western mini-blot)
- 200 µl (100 Western mini-blot)



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BACKGROUND

FTO, also known as Fatso or KIAA1752, is a 505 amino acid protein that has an N-terminal nuclear localization signal. Expressed in a variety of tissues, with highest levels present in brain and pancreatic tissue, Fatso exists as four alternatively spliced isoforms, one of which is associated with a predisposition to childhood and adult obesity. Due to its involvement in the development of obesity, Fatso is associated with an increased BMI and may be involved in the pathogenesis of type 2 diabetes. The gene encoding Fatso maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

- Peters, T., et al. 1999. Cloning of Fatso (FTO), a novel gene deleted by the Fused toes (Ft) mouse mutation. *Mamm. Genome* 10: 983-986.
- Pascoe, L., et al. 2007. Common variants of the novel type 2 diabetes genes CDKAL1 and HHEX/IDE are associated with decreased pancreatic β -cell function. *Diabetes* 56: 3101-3104.
- Field, S.F., et al. 2007. Analysis of the obesity gene FTO in 14,803 type 1 diabetes cases and controls. *Diabetologia* 50: 2218-2220.
- Dina, C., et al. 2007. Variation in FTO contributes to childhood obesity and severe adult obesity. *Nat. Genet.* 39: 724-726.

SOURCE

FTO (2F8) is a mouse monoclonal antibody raised against amino acids 189-505 of FTO of human origin.

SPECIFICITY

FTO monoclonal antibody detects endogenous levels of FTO protein.

STORAGE

Store at -20°C. Stable for one year from the date of shipment.

ALIASES

Fatso, KIAA1752

REACTIVITY

H, (Cross-reactivity in other species is undetermined.)

ISOTYPE

Mouse IgG

PREDICTED MOLECULAR WEIGHT

58KDa

IMPORTANT

Use an **anti-MOUSE** secondary antibody to detect the 10E2 antibody.

SECONDARY ANTIBODY

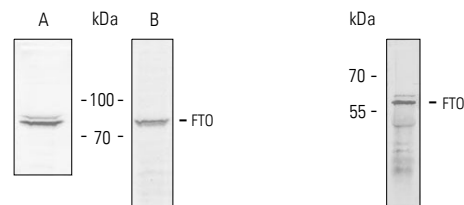
Use an anti-MOUSE secondary antibody.

APPLICATION TESTED

Western blotting 1: 1000
Immunoprecipitation 1: 50-1: 100
Immunofluorescence 1: 500-1: 1000

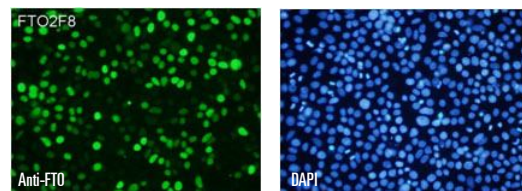
*** For Western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1× TBS, 0.05% Tween-20 at 4°C with gentle shaking, overnight.**

APPLICATION DATA



Western blot analysis of FTO expression in non-transfected (B), flag-FTO transfected HeLa whole cell lysates (A)

HeLa whole cell lysates with overexpression of FTO are immunoprecipitated with anti-2F8 and samples were fractionated by SDS-PAGE and blotted with anti-flag antibody



Immunofluorescence staining of formaldehyde-fixed, flag-FTO transfected HeLa cells

COMPANION PRODUCTS

- #M20002 Myc-Tag (19C2) Mouse mAb
- #M20003 HA-Tag (26D11) Mouse mAb
- #M20004 GFP-Tag (7G9) Mouse mAb
- #M20007 GST-Tag (12G8) Mouse mAb
- #M20008 DYDDDDDK-Tag (3B9) Mouse mAb (Binds to same epitope as Sigma's Anti-FLAG® M2 Antibody)
- #M20012 Anti-Myc-Tag Mouse mAb (Agarose Conjugated)
- #M20013 Anti-HA-Tag Mouse mAb (Agarose Conjugated)
- #M20018 Anti-DYKDDDDK-Tag Mouse mAb (Agarose Conjugated) (Binds to same epitope as Sigma's Anti-FLAG® M2 Antibody)