

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human FTO in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG ₁ Clone # 729722
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human FTO Met1-Arg178 Accession # Q9C0B1
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

FTO (FATSO; also known as Fat Mass and Obesity Associated gene) is a 58 kDa member of the AlkB family of Ferrous/2-Oxoglutarate-dependent oxidative DNA/RNA demethylases. It is found in the nucleus, and apparently serves to protect single stranded RNA and DNA against methylation. Although FTO is ubiquitously expressed, it has high levels in neurons that are involved in regulating energy intake, and is often found to colocalize with Oxytocin. Evidence suggests it promotes feeding behavior. Human FTO is 505 amino acids (aa) in length. It contains one dioxygenase catalytic region (aa 32-327) and a C-terminal FTO domain (aa 329-500). There are three potential isoform variants. One shows a ten aa substitution for aa 1-455, a second contains a 35 aa substitution for aa 1-413, and a third utilizes an alternative start site at Met400. Over aa 1-178, human FTO shares 89% aa identity with mouse FTO.

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