

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 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 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.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.