

**DESCRIPTION**

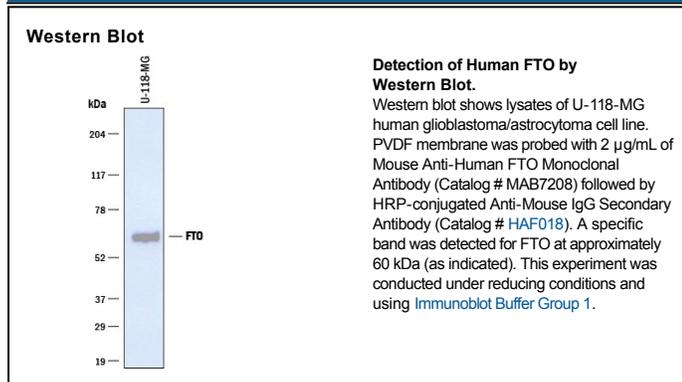
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human FTO in direct ELISAs and Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 729722
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human FTO Met1-Arg178 Accession # Q9C0B1
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	2 µg/mL	See Below
<b>Immunoprecipitation</b>	25 µg/mL	Cell lysates spiked with Recombinant Human FTO, see our available <a href="#">Western blot detection antibodies</a> .

**DATA**



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**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 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.