

## Product datasheet for **TA397455S**

### **Ffar4 Rabbit Polyclonal Antibody**

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	ELISA, WB
Recommended Dilution:	<b>WB:</b> 1.0 ug/ml <b>ELISA:</b> 1:50,000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Affinity purified Anti-Ffar4 antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide near the N-terminus portion of mouse Ffar4 protein.
Specificity:	Anti-Ffar4 is directed against mouse Ffar4 at a n-terminal position. This product is an affinity purified antibody produced by immunoaffinity chromatography using peptide coupled to agarose beads. A BLAST analysis was used to suggest reactivity with this protein in rat based on 100% homology match for the immunogen sequence.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	1.0 mg/ml - lot specific
Conjugation:	Unconjugated
Storage:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Stability:	Expiration date is one (1) year from date of receipt.
Gene Name:	free fatty acid receptor 4
Database Link:	<a href="#">Entrez Gene 107221 Mouse Q7TMA4</a>

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**Background:**

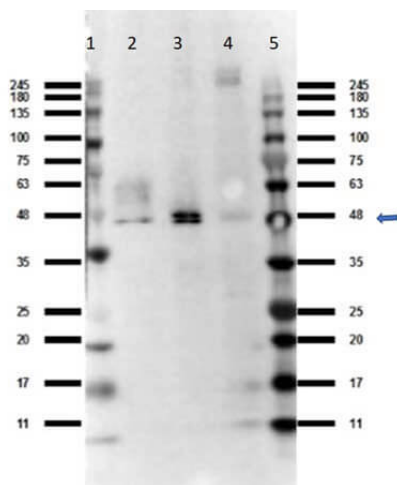
Anti-Ffar4 Antibody was designed, produced, and validated as part of the Joy Cappel Young Investigator Award (JCYIA). Free Fatty Acid 4 receptor (Ffa4 receptor or GPR120), a rhodopsin-like G protein coupled receptor (GPCR) subfamily member, is a receptor that senses specific fatty acids such as omega-3 fatty acid in fish oil or the endogenous signaling lipid, PHASA. Ffa4 receptor is enriched in lung, colon and adipose tissue but is also detected in many other tissues and cells. The activation of Ffar4 has multiple effects, including but not limited to inhibition of inflammation, improving insulin sensitivity and adipogenesis, and regulating hormone secretion from the gastro-intestinal system and pancreatic islets. Therefore, approaches that regulate FFA4 receptor activity could be developed as promising anti-diabetic and anti-inflammation drugs. GPR120 is the only fatty acid receptor that can sense lipids in adipose tissue, mature adipocytes, CD11c+ macrophages, and RAW264.7 cells making this receptor of potential importance in the prevention and treatment of metabolic and inflammatory diseases.

**Synonyms:**

rabbit anti-Ffar4 antibody, Ffar-4, Ffar 4, free fatty acid receptor 4, omega-3 fatty acid receptor 1, G-protein coupled receptor 120, G-protein coupled receptor GT01, Gpr120, O3far1

**Note:**

Anti-Ffar4 Antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band ~40-48 kDa in size corresponding to Ffar4 by western blotting in the appropriate cell lysate or extract. Tested using positive controls Raw 264.7 WCL p/n W10-001-369 and NIH/3T3 WCL p/n W10-000-358.

**Product images:**


Western Blot of Rabbit Anti-Ffar4 antibody. Lane 1: Ladder Opal Prestained (p/n MB-210-0500). Lane 2: Raw 264.7 WCL (p/n W10-001-369). Lane 3: NIH/3T3 WCL (p/n W10-000-358). Lane 4: PC-12 WCL (p/n W12-001-GL9). Lane 5: Ladder Opal Prestained (p/n MB-210-0500). Load: 35 µg per lane. Primary antibody: Ffar4 antibody at 1:1000 for overnight at 4°C. Secondary antibody: Gt-a-Rb HRP secondary antibody (p/n 611-103-122) at 1:70,000 for 30 min at RT. Block: (p/n MB-073) BlockOut Universal Blocking Buffer for 30 min at RT. Predicted/Observed size: 40.8 kDa, observed ~48 kDa band due to glycosylation of Ffar4 protein.