

**Datasheet for 600-401-GW0****Ffar4 Antibody****Overview**

|                      |                                            |
|----------------------|--------------------------------------------|
| <b>Description:</b>  | Anti-Ffar4 (RABBIT) Antibody - 600-401-GW0 |
| <b>Item No.:</b>     | 600-401-GW0                                |
| <b>Size:</b>         | 100 µg                                     |
| <b>Applications:</b> | ELISA, WB                                  |
| <b>Reactivity:</b>   | Mouse, Rat                                 |
| <b>Host Species:</b> | Rabbit                                     |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>Background:</b>   | 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. |
| <b>Synonyms:</b>     | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Host Species:</b> | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

**Target Details**

|                    |            |
|--------------------|------------|
| <b>Gene Name:</b>  | Ffar4      |
| <b>Reactivity:</b> | Mouse, Rat |

|                            |                                                                                                                                                                                                                                                                                                                                        |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Immunogen Type:</b>     | Conjugated Peptide                                                                                                                                                                                                                                                                                                                     |
| <b>Immunogen:</b>          | 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.                                                                                                                                             |
| <b>Purity/Specificity:</b> | 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. |
| <b>Relevant Links:</b>     | <ul style="list-style-type: none"><li>• <a href="#">UniProtKB - Q7TMA4</a></li><li>• <a href="#">NCBI - NP_861413.1</a></li><li>• <a href="#">GenelD - 107221</a></li></ul>                                                                                                                                                            |

## Application Details

|                             |                                                                                                                                                                                                                                                                                                                                                                     |
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| <b>Tested Applications:</b> | ELISA, WB                                                                                                                                                                                                                                                                                                                                                           |
| <b>Application Note:</b>    | 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. |
| <b>Assay Dilutions:</b>     | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.                                                                                                                                                                                                                                                                     |
| <b>ELISA:</b>               | 5.0 ug/ml                                                                                                                                                                                                                                                                                                                                                           |
| <b>WB:</b>                  | 1.0 ug/ml                                                                                                                                                                                                                                                                                                                                                           |

## Formulation

|                        |                                                            |
|------------------------|------------------------------------------------------------|
| <b>Physical State:</b> | Liquid (sterile filtered)                                  |
| <b>Concentration:</b>  | 1.08 mg/ml by UV absorbance at 280 nm                      |
| <b>Buffer:</b>         | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 |
| <b>Preservative:</b>   | 0.01% (w/v) Sodium Azide                                   |
| <b>Stabilizer:</b>     | None                                                       |

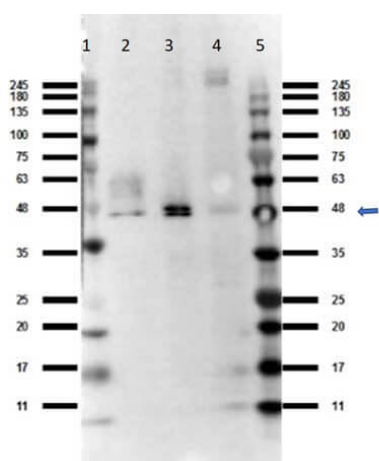
## Shipping & Handling

|                            |         |
|----------------------------|---------|
| <b>Shipping Condition:</b> | Dry Ice |
|----------------------------|---------|

**Storage Condition:** Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

**Expiration:** Expiration date is one (1) year from date of receipt.

## Images



### Western Blot

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.

## Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.