

Datasheet for 200-501-B07**GDF15 Antibody****Overview**

Description:	Anti-NAG-1 (C-terminal specific) (RAT) Monoclonal Antibody - 200-501-B07
Item No.:	200-501-B07
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Human, Mouse
Host Species:	Rat

Product Details

Background:	Non-steroidal anti-inflammatory drug (NSAID) activated gene (NAG-1) is a member of the transforming growth factor-beta (TGF-beta) superfamily. NAG-1 is also known as Macrophage Inhibitory Cytokine-1 (MIC-1), Growth Differentiation Factor 15 (GDF15), Placental Bone Morphogenetic Protein (PLAB), or Prostate Derived Factor (PDF). NAG-1 is expressed in human placenta, prostate and colon. It possesses antitumorigenic and proapoptotic activities. NAG-1 expression is dramatically increased in inflammation, injury and malignancy. Increase of NAG-1 expression is a feature of many cancers including breast, colon, pancreas and prostate. In a number of studies, NAG-1 expression was increased by a number of NSAIDs. This increase in expression may correlate with the chemopreventive effect NSAIDs seem to have with certain cancers. NAG-1 expression is also induced by PPAR gamma ligands and by several dietary compounds such as conjugated linoleic acids (CLAs), naturally occurring fatty acids in ruminant food products, indoles, epicatechin gallate, and genistein. Induced expression of NAG-1 results in stimulation of apoptosis and inhibition of cell growth. Inhibition of NAG-1 induced expression by small interference RNA (siRNA) results in repression of induced apoptosis. NAG-1 expression is regulated by a numbers of transcription factors such as ERG-1 and Sp1. EGR-1 may be necessary for NSAID-induced NAG-1 expression. The study of expression of NAG-1 proteins, including variants, is important to define their potential role as serum biomarkers for cancer diagnosis, treatment monitoring, epidemiology study, and nutrition surveys.
Synonyms:	rat anti-NAG1 antibody, NAG-1, GDF15, MIC-1, nonsteroidal anti-inflammatory drug-activated gene, NSAID-activated gene 1 protein, growth differentiation factor 15, macrophage inhibitory compound 1, prostate-derived factor
Host Species:	Rat
Clonality:	Monoclonal

Clone ID: 6D12.H10.E4

Format: IgG2a

Target Details

Gene Name: GDF15

Reactivity: Human, Mouse

Immunogen Type: Recombinant Protein

Immunogen: This Protein-A purified antibody was prepared by repeated immunizations with an MBP-tagged recombinant protein produced in E.coli corresponding to C-term mouse NAG-1 protein. Cross reactivity to MBP is negative.

Purity/Specificity: This product was purified from concentrated tissue culture supernatant Protein G chromatography. This antibody reacts with the C-terminus of endogenous NAG-1 protein from mouse tissues. A BLAST analysis suggests reactivity with NAG-1 from chimpanzee and macaque based on a 100% homology. Partial reactivity is expected against rat based on an 86% homology with the immunizing sequence. Cross-reactivity with NAG-1 from other sources has not been determined.

Relevant Links:

- [UniProtKB - Q99988](#)

Application Details

Tested Applications: ELISA, WB

Application Note: This Protein G Anti-NAG1/GDF15 purified antibody has been tested by ELISA and western blot for mouse NAG-1 protein. Specific conditions for reactivity should be optimized by the end user. Expect bands in Western blots of native protein of approximately ~58kDa using the appropriate cell lysate or extract.

Assay Dilutions: All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

ELISA: 1:2,000

WB: 1:1,000

Formulation

Physical State: Liquid (sterile filtered)

Concentration: 1.09 mg/mL by UV absorbance at 280 nm

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative: 0.01% (w/v) Sodium Azide

Stabilizer: None

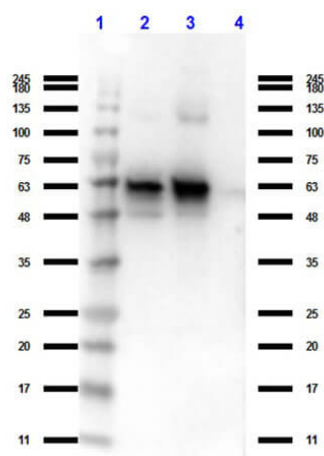
Shipping & Handling

Shipping Condition: 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.

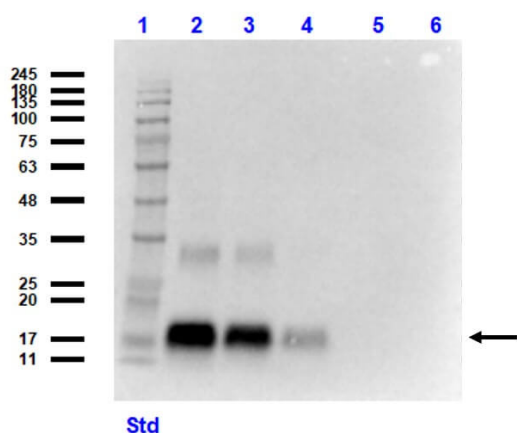
Expiration: Expiration date is one (1) year from date of receipt.

Images



Western Blot

Western Blot of Rat Anti-Nag 1 (C terminal specific). Lane 1: Protein Standard Opal Pre-stained (p/n M-210-0500). Lane 2: MBP-NAG-1 fusion protein 1. Lane 3: MBP-NAG-1 fusion protein 2. Lane 4: MBP (p/n 000-001-385). Load: 40ng. Primary Antibody: Rat anti-Nag 1 (C terminal specific) (200-501-B07) at 1 µg/mL for overnight at 4°C. Secondary Antibody: Rat IgG (H&L) Antibody Peroxidase Conjugated Pre-Adsorbed (612-103-120) at 1:40,000 dilution at RT for 30 minutes. Block: (p/n MB-070) at RT for 30 min.



Western Blot

Western Blot of Rat Anti-NAG1 C-term Antibody. Lane 1: Opal Prestained Molecular Weight Marker (p/n MB-210-0500). Lane 2: HeLa Lysate (W09-000-364) [10µL] + recomb. NAG1 [0.05µg]. Lane 3: HeLa Lysate (W09-000-364) [10µL] + recomb. NAG1 [0.02µg]. Lane 4: HeLa Lysate (W09-000-364) [10µL] + recomb. NAG1 [0.01µg]. Lane 5: HeLa Lysate (W09-000-364) [10µL]. Lane 6: HeLa Lysate (W09-000-364) [10µL] + MBP (000-001-385-1) [0.05µg]. Primary Antibody: Anti-NAG1-C-term at 1µg/mL overnight at 2-8°C. Secondary Antibody: Goat Anti-Rat IgG HRP (612-103-120) at 1:40,000 for 30 mins at RT. Block: BlockOut Buffer (MB-073) for 30 mins at RT. Predicted MW: 17kDa. Observed MW: ~17kDa. Exposure: 10 sec. Gel: 12%.

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.