

Datasheet for 610-401-B87S**Nag-1 Antibody****Overview**

Description:	Anti-NAG-1 (RABBIT) Antibody - 610-401-B87S
Item No.:	610-401-B87S
Size:	25 µL
Applications:	ELISA, WB
Reactivity:	H. sapiens (Human), Mus musculus (Mouse)
Host Species:	Rabbit

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: rabbit 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: Rabbit

Clonality: Polyclonal

Format: IgG

Target Details

Gene Name: Gdf15

Reactivity: H. sapiens (Human), Mus musculus (Mouse)

Immunogen Type: Peptide

Immunogen: This affinity purified antibody was prepared by repeated immunizations with a peptide corresponding to an amino acid sequence near the C-terminal of mouse NAG-1 protein.

Purity/Specificity: This product was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody reacts with endogenous NAG-1 protein from mouse and human tissues. A BLAST analysis suggests reactivity with NAG-1 from rat based on 100% homology. Partial reactivity is expected against swine, bovine and dog based on 92% homology. Cross-reactivity with NAG-1 from other sources has not been determined.

Relevant Links:

- [UniProtKB - Q9Z0J7](#)
- [NCBI - NP_035949](#)
- [GeneID - 23886](#)

Application Details

Tested Applications: ELISA, WB

Application Note: This affinity purified NAG-1 antibody has been tested by ELISA and western blotting of mouse and human NAG-1 protein. For detection of NAG-1 in mouse serum, a sandwich ELISA is suggested using this antibody in combination with anti-NAG-1/GDF15 (N-terminal) specific antibodies. Specific conditions for reactivity should be optimized by the end user. Expect bands in Western blots of approximately 14 and 28 kDa in size corresponding to NAG-1 monomer and dimer, respectively, 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: 1:100,000 - 1:120,000

WB: 1:500-1:2000 for human NAG-1; 1:3000-1:7000 for mouse NAG-1

Formulation

Physical State: Liquid (sterile filtered)

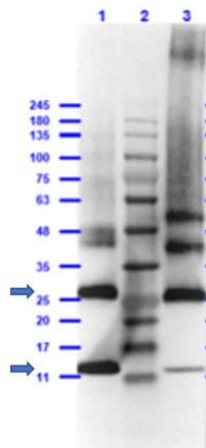
Concentration: 1.13 mg/mL by UV absorbance at 280 nm

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 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.
Expiration:	Expiration date is three (3) months from date of receipt.

Images



Western Blot

Western Blot of Rabbit Anti-Nag 1 Antibody.

Lane 1: Rec Ms GDF15 Protein Reduced [0.05µg].

Lane 2: Opal prestained Molecular Weight Marker (p/n MB-210-0200).

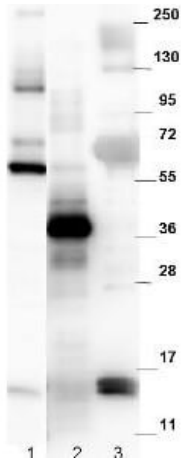
Lane 3: Rec Ms GDF15 Protein Non-Reduced [0.05µg].

Primary Antibody: Rb Anti-Nag1 at 1.0µg/mL overnight at 2-8°C.

Secondary Antibody: Gt Anti-Rabbit [H&L] HRP (p/n 611-1302) at 1:40,000 for 30mins at RT.

Blocking: Universal BlockOut Buffer (p/n MB-073) at RT for 1hr.

Predicted MW: 14kDa monomer and 28kDa dimer.



Western Blot

Western blot using Rockland's affinity purified anti-mouse NAG-1/GDF15 antibody. The blot shows detection of recombinant MBP-NAG-1 fusion protein (60 kDa) purified from E.coli (lane 1); yeast cell lysate expressing SUMO-mouse NAG-1 (42 kDa) (lane 2), and human NAG-1 monomer purified from CHO-K1 cells (14 kDa) (lane 3). All lysates were run under reducing conditions. Primary antibody was used at a 1:1000 dilution in TBS containing 1% BSA and 0.2% Tween, and reacted overnight at 4°C. Nag-1 was detected using a 1:40,000 dilution of peroxidase conjugated Gt-a-Rabbit antibody (611-103-122) in Blocking Buffer for Fluorescent Western Blotting (MB-070) for 30 min at room temperature. Molecular weight estimation was made by comparison to prestained MW markers. Image was captured using the BioRad Versadoc™ 4000MP Imaging System. Other detection systems will yield similar results.

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.