

Anti-NAG-1 (C-terminal specific) (RABBIT) Antibody - 600-401-B07S
Code: 600-401-B07S

Size: 25 µL

Product Description: Anti-NAG-1 (C-terminal specific) (RABBIT) Antibody - 600-401-B07S

Concentration: 1.0 mg/mL by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Rabbit
Gene Name	GDF15
Species Reactivity	human, mouse
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
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.
Synonyms	rabbit anti-NAG1 antibody, NAG 1, NAG-1, GDF15, MIC1, MIC-1, GDF-15, PLAB, PTGFB, nonsteroidal anti-inflammatory drug-activated gene, NSAID-activated gene 1 protein, growth differentiation factor 15, macrophage inhibitory compound 1, Placental bone morphogenetic protein, Prostate differentiation factor
Application Note	This affinity purified antibody is suitable for ELISA, IHC, and western blotting of human and mouse NAG-1 protein. For detection of NAG-1 in human serum, a sandwich ELISA is suggested using this antibody in combination with anti-NAG-1/GDF15 (N-terminal), H variant or D variant 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.
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.
Purity And Specificity	This product was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody reacts with the C-terminus of endogenous NAG-1 protein from human and 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.
ELISA	1:300,000
Western Blot	1:2,000 - 1:10,000
Immunohistochemistry	User Optimized
Expiration	Expiration date is three (3) months from date of opening.
Immunogen	This affinity purified antibody was prepared by repeated immunizations with a synthetic peptide corresponding to a region near the carboxy terminal end of human NAG-1 protein. A residue of cysteine was added to facilitate coupling to KLH.

General Reference

Baek, S.J., Eling, T.E. (2006) Changes in gene expression contribute to cancer prevention by COX inhibitors. *Prog Lipid Res.* 45(1):1-16.
Lindmark, F., Zheng, S.L., Wiklund, F., Bensen, J., Balter, K.A., Chang, B., Hedelin, M., Clark, J., Stattin, P., Meyers, D.A., Adami, H-O., Isaacs, W., Gronberg, H. and Xu, J. (2004) H6D Polymorphism in Macrophage-Inhibitory Cytokine-1 Gene Associated With Prostate Cancer *J Natl Cancer Inst.* 96(16): 1248-1254.

Related Products

600-401-929	Anti-Heat shock protein HSP 90-alpha (RABBIT) Antibody - 600-401-929
600-401-981	Anti-Heat Shock Protein HSP 90-alpha acetyl specific K294 (RABBIT) Antibody - 600-401-981
600-401-B08	Anti-NAG-1 (H variant specific) (RABBIT) Antibody - 600-401-B08
600-401-B08S	Anti-NAG-1 (H variant specific) (RABBIT) Antibody - 600-401-B08S

Related Links

UniProtKB - Q99988

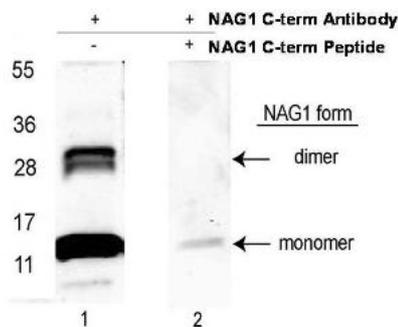
<http://www.uniprot.org/uniprot/Q99988>

NCBI - Q99988.3 <http://www.ncbi.nlm.nih.gov/protein/Q99988.3>

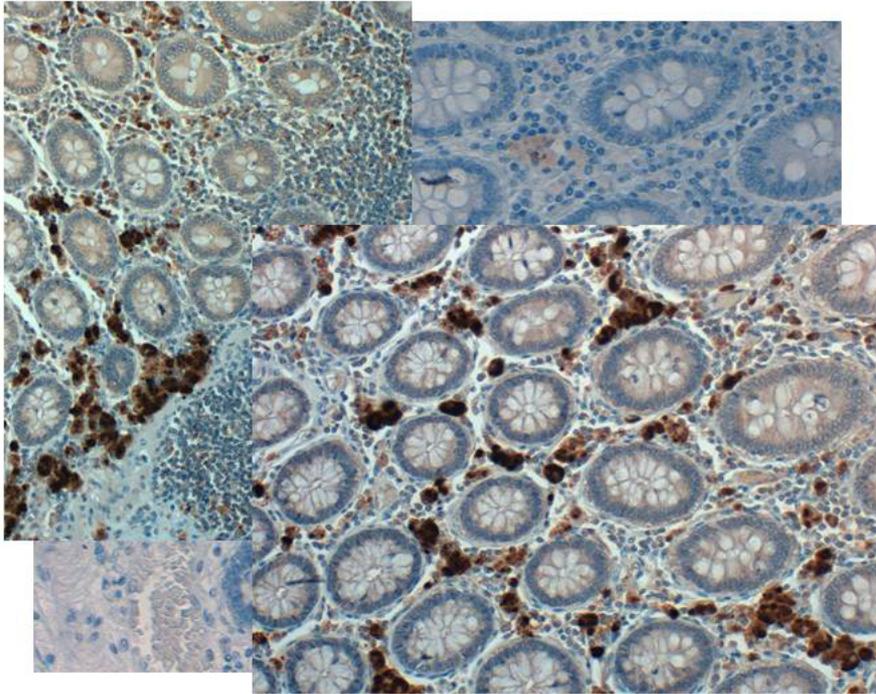
GeneID - 9518

Images

- Western blot using Rockland's affinity purified anti-NAG-1/GDF15 (C-terminal) antibody shows detection NAG-1 purified from CHO cells as a 14 kDa band corresponding to monomer and a 28 kDa band corresponding to dimerized NAG-1. Samples were electrophoresed on a 4-20% gradient gel under reducing conditions. Lane 1 shows NAG-1 detection. Lane 2 shows reactivity is blocked when this antibody is pre-incubated with the immunizing peptide prior to Western blotting.

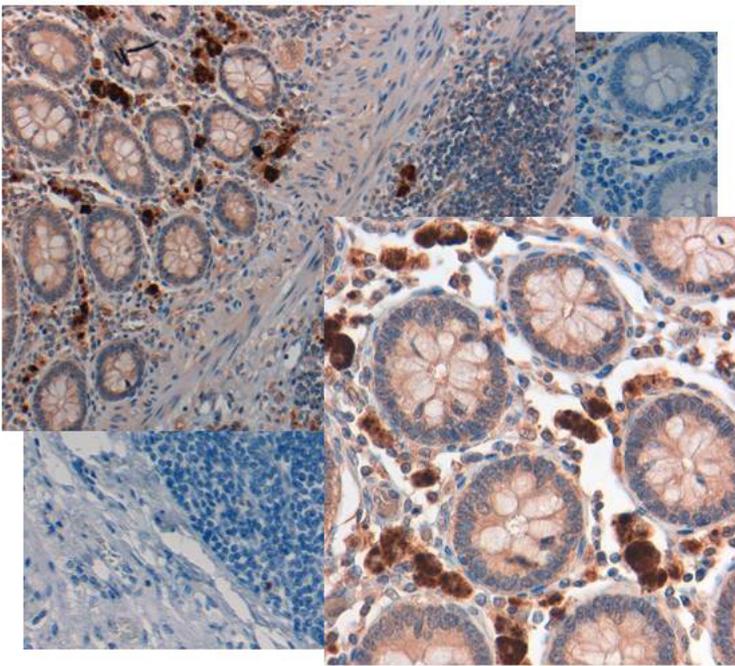


- Immunohistochemistry of Rabbit anti NAG1 antibody (C-terminal specific). Tissue: Human Colon at 20X in colon tissue at pH 6. Negative control of human colon tissue pH6 is shown in background.



3

Immunohistochemistry of Rabbit anti NAG1 antibody (C-terminal specific). Tissue: Human Colon at 20X in colon tissue at pH 6. Negative control of human colon tissue pH6 is shown in background.



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.