Anti-NAG-1 (RABBIT) Antibody - 610-401-B87

Code: 610-401-B87 **Size:** 100 µg

Product Description: Anti-NAG-1 (RABBIT) Antibody - 610-401-B87

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

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Rabbit
Gene Name	Gdf15
Species Reactivity	mouse, human
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 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.
Synonyms	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
Application Note	This affinity purified antibody is suitable for 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.
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 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.
Assay Dilutions	User Optimized
ELISA	1:100,000 - 1:120,000
WESTERN BLOT	1:500 - 1:2000 for Human NAG-1 only; 1:3000 - 1:7000 for Mouse NAG-1
OTHER ASSAYS	User Optimized
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.
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

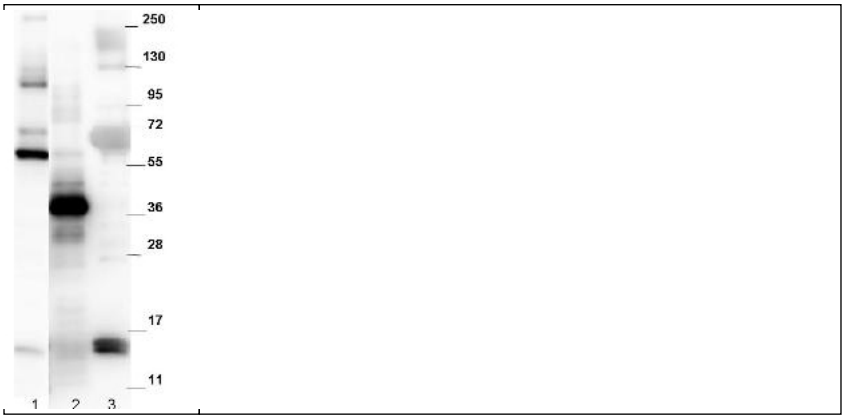
600-401-432	Anti-TGF beta 1 (RABBIT) Antibody - 600-401-432
600-403-B07	Anti-NAG-1 (C-terminal specific) (RABBIT) Antibody Peroxidase Conjugated - 600-403-B07
600-403-B08	Anti-NAG-1 (H variant specific) (RABBIT) Antibody Peroxidase Conjugated - 600-403-B08
600-403-B09	Anti-NAG-1 (D variant specific) (RABBIT) Antibody Peroxidase Conjugated - 600-403-B09

Related Links

UniProtKB	http://www.uniprot.org/uniprot/Q9Z0J7
NCBI	http://www.ncbi.nlm.nih.gov/sites/entrez?cmd=Retrieve&db=protein&dopt=GenPept&RID=SZX8ZZHC01S&log%24=protalign&blast_rank=1&list_uids=170784848
NCBI - NP_035949	http://www.ncbi.nlm.nih.gov/sites/entrez?cmd=Retrieve&db=protein&dopt=GenPept&RID=SZX8ZZHC01S&log%24=protalign&blast_rank=1&list_uids=170784848
UniProt - Q9Z0J7	http://www.uniprot.org/uniprot/Q9Z0J7
Gene ID - 23886	http://www.ncbi.nlm.nih.gov/gene/23886

Images

1 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 R&D 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 containg 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.



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