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Datasheet for 610-401-B87

Nag-1 Antibody

Overview

Description:	Anti-NAG-1 (RABBIT) Antibody - 610-401-B87
Item No.:	610-401-B87
Size:	100 µg
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

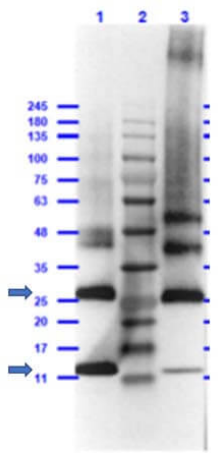
Physical State:	Liquid (sterile filtered)
Concentration:	1.13 mg/mL by UV absorbance at 280 nm

Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

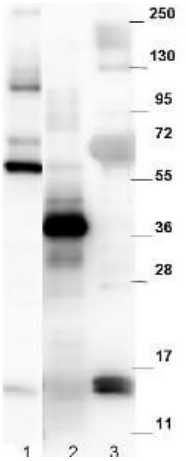
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C 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-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.

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