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Datasheet for 209-401-B88

GDF15 Antibody

Overview

Description:	Anti-NAG-1 (RABBIT) Antibody - 209-401-B88
Item No.:	209-401-B88
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Human, 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-NAG-1 Antibody, NAG1, 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:	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 mature human NAG-1 protein. Cross reactivity to MBP was removed via cross-adsorption chromatography.
Purity/Specificity:	This antibody reacts with endogenous NAG-1 protein from human tissues. A BLAST analysis using the immunizing recombinant protein suggests reactivity with NAG-1 from human and chimpanzee based on 100% and 98% homology, respectively, and with macaque based on an 94% homology, and with mouse and rat based on 70% homology with the immunizing sequence. Cross-reactivity with NAG-1 from other sources has not been determined.
Relevant Links:	• UniProtKB - Q99988 • NCBI - Q99988.3 • GeneID - 9518

Application Details

Tested Applications:	ELISA, WB
Application Note:	This Protein-A purified, MBP-cross-adsorbed NAG1/GDF15 antibody has been tested by ELISA and Western Blot 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-NAG1/GDF15 C-terminal specific antibodies. This antibody is useful in dual antibody immunometric assays (EIA). Specific conditions for reactivity should be optimized by the end user. Expect bands in western blots of approximately 14 kDa in size corresponding to NAG-1 monomer 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:	1:500
WB:	1:800 - 1:1500

Formulation

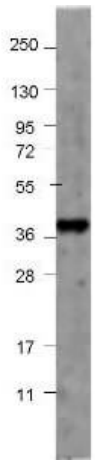
Physical State:	Liquid (sterile filtered)

Concentration:	1.37 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 using Rockland's affinity purified anti-Human NAG-1 antibody shows detection of a 42 kDa band corresponding to purified recombinant fusion protein MBP-human NAG-1. Samples were electrophoresed on a 4-20% gradient gel under reducing conditions. Primary antibody was used at 1:1000 in 1% BSA-TBST overnight at 4°C. DyLight649™ Goat Anti-Rabbit IgG secondary antibody (p/n 611-143-122) was used at 1:20,000 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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