

Datasheet for 600-401-B09S**GDF15 Antibody****Overview**

Description:	Anti-NAG-1 (D variant specific) (RABBIT) Antibody - 600-401-B09S
Item No.:	600-401-B09S
Size:	25 µL
Applications:	ELISA
Reactivity:	Human
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, 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
Host Species:	Rabbit
Clonality:	Polyclonal

Format: IgG

Target Details

Gene Name:	GDF15
Reactivity:	Human
Immunogen Type:	Conjugated Peptide
Immunogen:	This affinity purified antibody was prepared by repeated immunizations with a synthetic peptide corresponding to a region near the amino terminal end of human NAG-1 protein. A residue of cysteine was added to facilitate coupling to KLH.
Purity/Specificity:	This product was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody specifically reacts with a D variant sequence of human NAG-1 protein from human tissues. A BLAST analysis was used to suggest partial reactivity with NAG-1 from chimpanzee and macaque based on a 92% homology. Cross-reactivity with NAG-1 from other sources has not been determined.
Relevant Links:	• UniProtKB - Q99988 • NCBI - Q99988.3 • GenelD - 9518

Application Details

Tested Applications:	ELISA
Application Note:	Anti-NAG1 affinity purified antibody is tested for use in ELISA and suitable for western blotting assays. This reagent is particularly useful to differentiate polymorphic forms of NAG-1 protein present in human serum samples. This antibody is useful in dual antibody immunometric assays (EIA). Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000
IHC:	User Optimized
WB:	2,000-10,000

Formulation

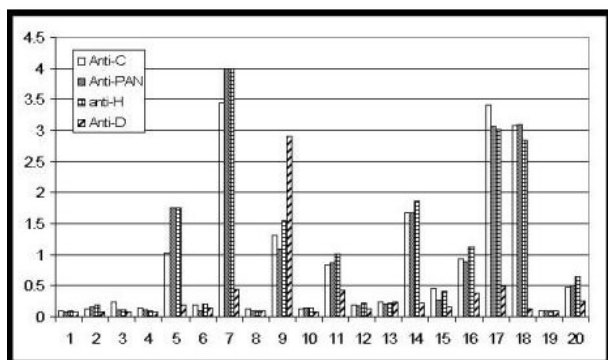
Physical State: Liquid (sterile filtered)

Concentration:	0.69 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



ELISA

In this sandwich ELISA, NAG-1 was captured from human serum using the following antibodies (see Related Products below): anti-NAG-1/GDF15 (C terminal specific), anti-NAG-1/GDF15 (N terminal specific (PAN)), anti-NAG-1/GDF15 (H-variant) and anti-NAG-1/GDF15 (D-variant) polyclonal antibodies. Micro titer plates were coated with capture antibody at 1 µg/mL. Control plates received PBS only (data not shown). After overnight incubation and blocking, independent experiments using 20 random normal human sera were performed. Neat normal sera were applied and incubated for 1 h at 37 °C. After washing, HRP conjugated anti-NAG-1/GDF15 (C terminal specific) antibody was added for detection at 100 µL per well at 1 µg/mL. Following further incubation for 1 hr at 37°C, the plates were washed and TMBE was added as an HRP substrate for 30 min. The reaction was stopped by 1 M H2SO4 and values were measured at 450nm.

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.