Anti-NAG-1 (H variant specific) (RABBIT) Antibody - 600-401-B08

Code: 600-401-B08 **Size:** 100 µg

Product Description: Anti-NAG-1 (H variant specific) (RABBIT) Antibody - 600-401-B08

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
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	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 use in ELISA and 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.
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 specifically reacts with an H 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.
Assay Dilutions	User Optimized
ELISA	1:2,500
Western Blot	1:1,000 - 1:2,000
Immunohistochemistry	User Optimized
Other Assays	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
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.

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

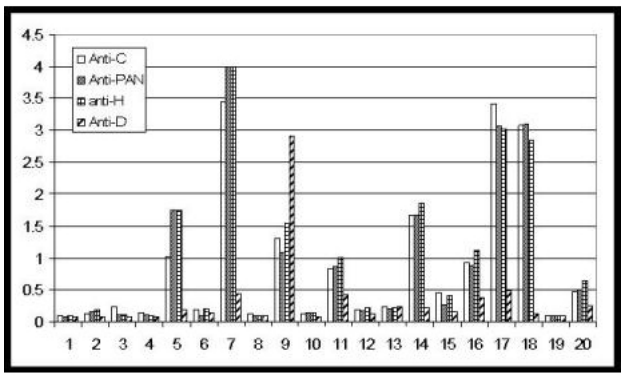
600-401-929	Anti-Heat shock protein HSP 90-alpha (RABBIT) Antibody - 600-401-929
600-401-981	Anti-Heat Shock Protein HSP 90-alpha acetyl specific K294 (RABBIT) Antibody - 600-401-981
600-401-B07	Anti-NAG-1 (C-terminal specific) (RABBIT) Antibody - 600-401-B07
600-401-B07S	Anti-NAG-1 (C-terminal specific) (RABBIT) Antibody - 600-401-B07S

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

1	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.



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