Anti-NAG-1 (N-terminal specific) (MOUSE) Monoclonal Antibody - 200-301-B10

Code: 200-301-B10 **Size:** 100 µg

Product Description: Anti-NAG-1 (N-terminal specific) (MOUSE) Monoclonal Antibody - 200-301-B10

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

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Mouse
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	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 Protein A purified antibody is suitable for ELISA and western blotting of human NAG-1 protein. For detection of NAG-1 in human serum, a sandwich ELISA is suggested using this antibody in combination with anti-NAG-1/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.
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 purified from concentrated tissue culture supernatant Protein A chromatography. This antibody specifically reacts with the amino terminal end 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. Multimeric forms of NAG-1 may be detected. Cross-reactivity with NAG-1 from other sources has not been determined.
Assay Dilutions	User Optimized
ELISA	1:200,000
WESTERN BLOT	1:1,000
OTHER ASSAYS	User Optimized
Immunogen	This Protein A 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

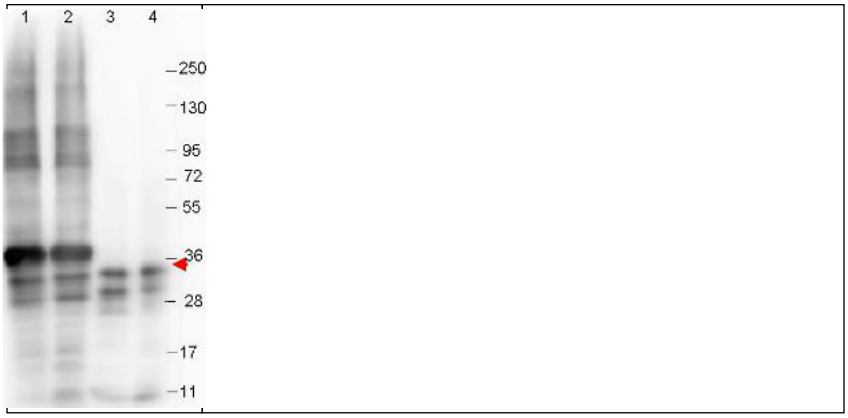
009-001-301	IL-1ß Human Recombinant Protein - 009-001-301
009-001-310	IL-6 Human Recombinant Protein - 009-001-310
009-001-B95	IL-2 Human Recombinant Protein - 009-001-B95
010-001-310	IL-6 Mouse Recombinant Protein - 010-001-310

Related Links

UniProtKB	http://www.uniprot.org/uniprot/Q99988
NCBI - Q99988.3	http://www.ncbi.nlm.nih.gov/protein/Q99988.3
UniProt - Q99988	http://www.uniprot.org/uniprot/Q99988
Gene ID - 9518	http://www.ncbi.nlm.nih.gov/gene/9518

Images

1	Western blot shows detection of recombinant NAG-1 protein (arrow) present in Pichia pastoris whole cell lysates: lane 1 - yeast cell lysate expressing NAG-1 H variant with SUMO expression tag at 36 kDa; lane 2 - yeast cell lysate expressing NAG-1 D variant with SUMO expression tag at 36 kDa; lane 3 - yeast cell lysate expressing NAG-1 H variant; and lane 4 - yeast cell lysate expressing NAG-1 D variant. 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. For detection, a 1:40,000 dilution of peroxidase conjugated Gt-a-Mouse IgG secondary antibody (610-103-121) was used 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.



Disclaimer

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