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Product datasheet for TA396758S

GDF15 Mouse Monoclonal Antibody [Clone ID: 23B3.D2.H5]

Product data:

Product Type:	Primary Antibodies
Clone Name:	23B3.D2.H5
Applications:	ELISA, WB
Recommended Dilution:	**WB**: 1:1,000 **ELISA**: 1:2,000
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1, kappa
Clonality:	Monoclonal
Immunogen:	This Protein A purified antibody was prepared by repeated immunizations with a synthetic peptide corresponding to a region near the carboxy terminal end of human NAG-1 protein. A residue of cysteine was added to facilitate coupling to KLH.
Specificity:	This product was purified from concentrated tissue culture supernatant Protein A chromatography. This antibody reacts with the C-terminus of endogenous NAG-1 protein from human tissues. A BLAST analysis suggests reactivity with NAG-1 from chimpanzee and macaque based on a 100% homology. Partial reactivity is expected against rat based on an 86% homology with the immunizing sequence. Cross-reactivity with NAG-1 from other sources has not been determined.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	1.13 mg/mL - lot specific
Conjugation:	Unconjugated
Storage:	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.
Stability:	Expiration date is three (3) months from date of receipt.
Gene Name:	growth differentiation factor 15

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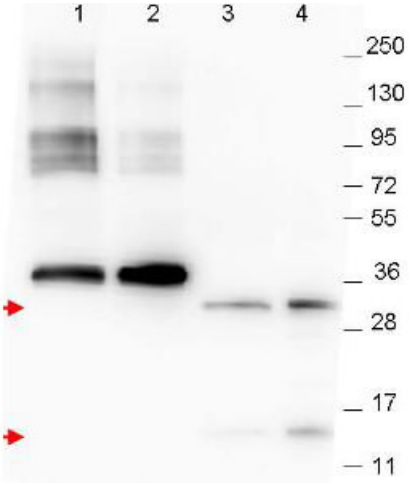
Database Link: Entrez Gene 9518 Human
Q99988

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: mouse 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

Note: This Protein A purified Anti-NAG1 antibody has been tested by ELISA and western blotting for 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 (N-terminal), H variant or D variant specific antibodies. Specific conditions for reactivity should be optimized by the end user. Expect bands in Western blots of native protein of approximately 13 and 26 kDa in size corresponding to NAG-1 monomer and dimer, respectively, using the appropriate cell lysate or extract.

Product images:



Western blot using Rockland's anti-NAG-1 monoclonal antibody. The blot shows detection of recombinant NAG-1 protein present in Pichia pastoris whole cell lysates: lane 1 - yeast cell lysate expressing NAG-1 H variant with SUMO expression tag, lane 2 - yeast cell lysate expressing NAG-1 D variant with SUMO expression tag, lane 3 - yeast cell lysate expressing NAG-1 H variant and lane 4 - yeast cell lysate expressing NAG-1 D variant. Recombinant NAG-1 proteins correspond to 32 kDa and 16 kDa bands as indicated by the arrowheads. All lysates were run under reducing conditions. Primary antibody was used at a 1:1,000 dilution in TBS containg 1% BSA and 0.2% Tween, and reacted overnight at 4°C. Detection occurred using a 1:40,000 dilution of peroxidase conjugated Gt-a-Mouse IgG secondary antibody (610-103-121) 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.