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Product datasheet for TA397259S

Gdf15 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, WB
Recommended Dilution:	**WB**: 1:1000 **ELISA**: 1:10,000
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	This Protein-A purified antibody was prepared by repeated immunizations with an MBP-tagged recombinant protein produced in E.coli corresponding to full-length mouse NAG-1 protein. Cross reactivity to MBP was removed via cross-adsorption chromatography.
Specificity:	This product was Protein-A purified and MBP-cross-adsorbed from monospecific antiserum by immunoaffinity chromatography. This antibody reacts with endogenous NAG-1 protein from mouse and human tissues. A BLAST analysis suggests reactivity with NAG-1 from mouse and rat based on 100% and 97% homology, respectively, and with chinese hamster based on an 92% 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
Database Link:	Entrez Gene 9518 HumanEntrez Gene 23886 Mouse Q9Z0J7

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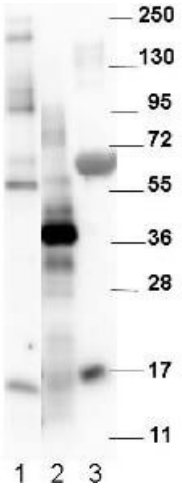
Background: Non-steroidal anti-inflammatory drug (NSAID) activated gene (NAG-1) is a member of the transforming growth factor-beta (TGF-beta) superfamily. NAG-1 is also known as Macrophage Inhibitory Cytokine-1 (MIC-1), Growth Differentiation Factor 15 (GDF15), Placental Bone Morphogenetic Protein (PLAB), 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

Note: This Protein-A purified, MBP-cross-adsorbed NAG-1 antibody has been tested in ELISA and western blotting of mouse and human NAG-1 protein. For detection of NAG-1 in mouse serum, a sandwich ELISA is suggested using this antibody in combination with anti-NAG-1/GDF15 (N-terminal) specific antibodies (see Related products). Specific conditions for reactivity should be optimized by the end user. Expect bands in Western blots of approximately 14 and 28 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 affinity purified anti-Mouse NAG-1/GDF15 antibody. The blot shows detection of recombinant MBP-NAG-1 fusion protein (60 kDa) purified from E.coli (lane 1); yeast cell lysate expressing SUMO-mouse NAG-1 (42 kDa) (lane 2), and R&D human NAG-1 monomer purified from CHO-K1 cells (14 kDa) (lane 3). All lysates were run under reducing conditions. Primary antibody was used at a 1:1000 dilution in TBS containg 1% BSA and 0.2% Tween, and reacted overnight at 4°C. Nag-1 was detected using a 1:40,000 dilution of peroxidase conjugated Gt-a-Rabbit antibody (611-103-122) 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.