Datasheet for 200-501-B07S

GDF15 Antibody

Overview

Description:	Anti-NAG-1 (C-terminal specific) (RAT) Monoclonal Antibody - 200-501-B07S
Item No.:	200-501-B07S
Size:	25 µL
Applications:	ELISA, WB
Reactivity:	Human, Mouse
Host Species:	Rat

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:	rat 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
Host Species:	Rat
Clonality:	Monoclonal

Clone ID:	6D12.H10.E4
Format:	IgG2a

Target Details

Gene Name:	GDF15
Reactivity:	Human, Mouse
Immunogen Type:	Recombinant Protein
Immunogen:	This Protein-A purified antibody was prepared by repeated immunizations with an MBP-tagged recombinant protein produced in E.coli corresponding to C-term mouse NAG-1 protein. Cross reactivity to MBP is negative.
Purity/Specificity:	This product was purified from concentrated tissue culture supernatant Protein G chromatography. This antibody reacts with the C-terminus of endogenous NAG-1 protein from mouse 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.
Relevant Links:	• UniProtKB - Q99988

Application Details

Tested Applications:	ELISA, WB
Application Note:	This Protein G Anti-NAG1 purified antibody has been tested by ELISA and western blot for mouse NAG-1 protein. Specific conditions for reactivity should be optimized by the end user. Expect bands in Western blots of native protein of approximately ~58kDa using the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:2,000
WB:	1:1,000

Formulation

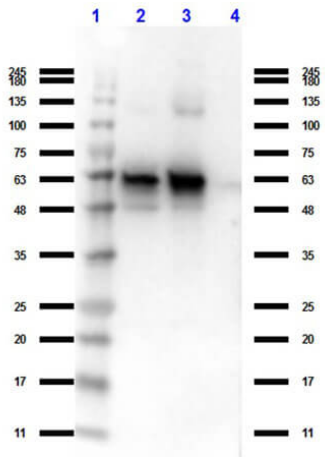
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

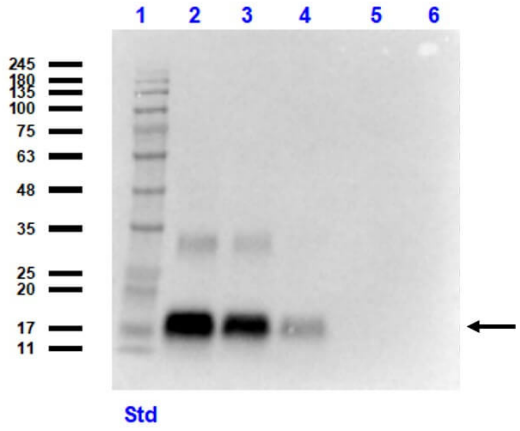
Shipping & Handling

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



Western Blot
Western Blot of Rat Anti-Nag 1 (C terminal specific). Lane 1: Protein Standard Opal Pre-stained (p/n M-210-0500). Lane 2: MBP-NAG-1 fusion protein 1. Lane 3: MBP-NAG-1 fusion protein 2. Lane 4: MBP (p/n 000-001-385). Load: 40ng. Primary Antibody: Rat anti-Nag 1 (C terminal specific) (200-501-B07) at 1 µg/mL for overnight at 4C. Secondary Antibody: Rat IgG (H&L) Antibody Peroxidase Conjugated Pre-Adsorbed (612-103-120) at 1:40,000 dilution at RT for 30 minutes. Block: (p/n MB-070) at RT for 30 min.



Western Blot

Western Blot of Rat Anti-NAG1 C-term Antibody. Lane 1: Opal Prestained Molecular Weight Marker (p/n MB-210-0500). Lane 2: HeLa Lysate (W09-000-364) [10µL] + recomb. NAG1 [0.05µg]. Lane 3: HeLa Lysate (W09-000-364) [10µL] + recomb. NAG1 [0.02µg]. Lane 4: HeLa Lysate (W09-000-364) [10µL] + recomb. NAG1 [0.01µg]. Lane 5: HeLa Lysate (W09-000-364) [10µL]. Lane 6: HeLa Lysate (W09-000-364) [10µL] + MBP (000-001-385-1) [0.05µg]. Primary Antibody: Anti-NAG1-C-term at 1µg/mL overnight at 2-8°C. Secondary Antibody: Goat Anti-Rat IgG HRP (612-103-120) at 1:40,000 for 30 mins at RT. Block: BlockOut Buffer (MB-073) for 30 mins at RT. Predicted MW: 17kDa. Observed MW: ~17kDa. Exposure: 10 sec. Gel: 12%.

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