Datasheet for ABIN1043920

anti-GDF15 antibody (C-Term) (Biotin)

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Overview

Quantity:	100 µg
Target:	GDF15
Binding Specificity:	C-Term
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This GDF15 antibody is conjugated to Biotin
Application:	Western Blotting (WB), ELISA

Product Details

Immunogen:	Nag-1 Antibody Biotin Conjugated 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. Immunogen Type: Peptide
Isotype:	IgG
Specificity:	Nag-1 Antibody Biotin Conjugated antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody reacts with the C-terminus of endogenous NAG-1 protein from human and 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.

Product Details

Characteristics:	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.

Target Details

Target:	GDF15
Alternative Name:	Nag-1 (GDF15 Products)
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

Target Details

	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: 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
Gene ID:	9518
UniProt:	Q99988
Pathways:	SARS-CoV-2 Protein Interactome

Application Details

Application Notes:	Nag-1 Antibody Biotin Conjugated antibody is suitable for ELISA and western blotting of human and mouse 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 approximately 14 and 28 kDa in size corresponding to NAG-1 monomer and dimer, respectively, using the appropriate cell lysate or extract.
Comment:	Gene Name: GDF15
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Reconstitution Buffer: Restore with deionized water (or equivalent), Reconstitution Volume: 100 µL
Concentration:	1.0 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

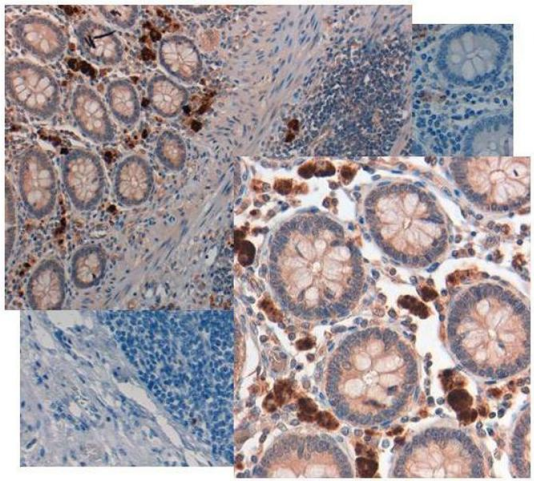
Handling

	should be handled by trained staff only.
Storage:	4 °C/-20 °C
Storage Comment:	Store vial at 4 °C prior to restoration. For extended storage aliquot contents and freeze at -20 °C or below. 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. Expiration date is one (1) year from date of opening.
Expiry Date:	12 months

Publications

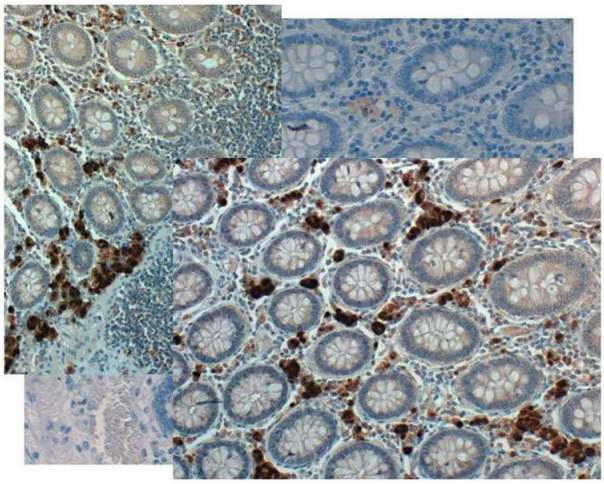
Product cited in:	Purkey, Woolfrey, Crosby, Stich, Chick, Aoto, DellAcqua: "AKAP150 Palmitoylation Regulates Synaptic Incorporation of Ca2+-Permeable AMPA Receptors to Control LTP." in: **Cell reports**, Vol. 25, Issue 4, pp. 974-987.e4, (2018) (PubMed).

Images



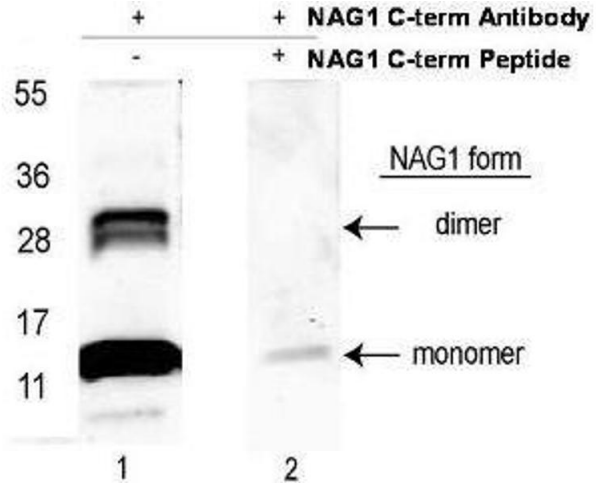
Immunohistochemistry

Image 1.



Immunohistochemistry

Image 2.



Western Blotting

Image 3. Western blot using affinity purified anti-NAG-1/GDF15 (C-terminal) antibody shows detection NAG-1 purified from CHO cells as a 14 kDa band corresponding to monomer and a 28 kDa band corresponding to dimerized NAG-1. Samples were electro-phoresed on a 4-20% gradient gel under reducing conditions. Lane 1 shows NAG-1 detection. Lane 2 shows reactivity is blocked when this antibody is pre-incubated with the immunizing peptide prior to Western blotting.