

## Anti-Nag-1 GDF15 Antibody Peroxidase Conjugated

Catalog Number: A01583-3

### About GDF15

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.

### Overview

Product Name	Anti-Nag-1 GDF15 Antibody Peroxidase Conjugated
Reactive Species	Human, Mouse
Description	Boster Bio Anti-Nag-1 GDF15 Antibody Peroxidase Conjugated (Catalog # A01583-3). Tested in ELISA applications. This antibody reacts with Human, Mouse.
Conjugate	HRP
Application	ELISA
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free, 0.01% (w/v) Gentamicin Sulfate. Do NOT add Sodium Azide!
Storage Instructions	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. (Ship on dry ice.)
Host	Rabbit
Uniprot ID	Q99988

### Technical Details

Immunogen	Anti-NAG-1 (C-terminal specific) 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.
Predicted Reactive Species	Bovine, Mammalian
Isotype	IgG
Form	Lyophilized
Concentration	1.07 mg/ml by UV absorbance at 280 nm
Purification	Anti-NAG-1 (C-terminal specific) 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.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>ELISA: 1:10,000-1:50,000</p> <p>IHC: 1:500-1:2,500</p> <p>WB: 1:1,000-1:5,000</p>

## Anti-Nag-1 GDF15 Antibody Peroxidase Conjugated (A01583-3) Images

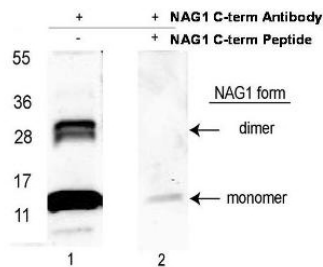


Figure 1. Western blot analysis of GDF15 using anti-GDF15 antibody (A01583-3). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-GDF15 antigen affinity purified polyclonal antibody (Catalog # A01583-3) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-Rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # SA1022) with Tanon 5200 system. A specific band was detected for GDF15.

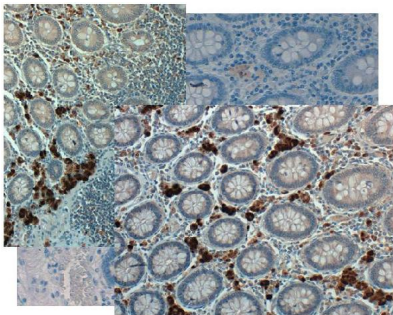


Figure 2. IHC analysis of GDF15 using anti-GDF15 antibody (A01583-3). GDF15 was detected in paraffin-embedded section. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-GDF15 Antibody (A01583-3) overnight at 4°C. Biotinylated goat anti Rabbit IgG antibody was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

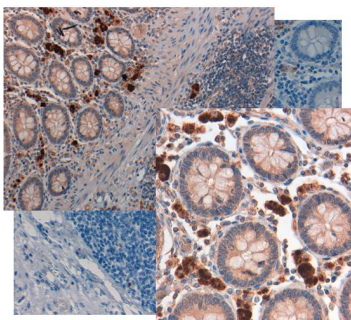


Figure 3. IHC analysis of GDF15 using anti-GDF15 antibody (A01583-3). GDF15 was detected in paraffin-embedded section. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-GDF15 Antibody (A01583-3) overnight at 4°C. Biotinylated goat anti Rabbit IgG antibody was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

## 1 Publications Citing This Product

1. PubMed ID: 22117761, Wang Y, Li D, Xu N, Tao W, Zhu R, Sun R, Fan W, Zhang P, Dong T, Yu L. Arthritis Res Ther. 2011;13(6):R193. Doi: 10.1186/Ar3522. Epub 2011 Nov 25. Follistatin-Like Protein 1: A Serum Biochemical Marker Reflecting The Severity Of Joint Damage In Pa...

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