BOSTER
antibody and ELISA experts

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Anti-NOLA1/GAR1 Antibody Picoband®

Catalog Number: A07049-1

About GAR1

H/ACA ribonucleoprotein complex subunit 1 is a protein that in humans is encoded by the GAR1 gene. This gene is a member of the H/ACA snoRNPs (small nucleolar ribonucleoproteins) gene family. snoRNPs are involved in various aspects of rRNA processing and modification and have been classified into two families: C/D and H/ACA. The H/ACA snoRNPs also include the DKC1, NOLA2 and NOLA3 proteins. These four H/ACA snoRNP proteins localize to the dense fibrillar components of nucleoli and to coiled (Cajal) bodies in the nucleus. Both 18S rRNA production and rRNA pseudouridylation are impaired if any one of the four proteins is depleted. These four H/ACA snoRNP proteins are also components of the telomerase complex. The encoded protein of this gene contains two glycine- and arginine-rich domains and is related to Saccharomyces cerevisiae Gar1p. Two splice variants have been found for this gene.

Overview

Product Name	Anti-NOLA1/GAR1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-NOLA1/GAR1 Antibody Picoband® catalog # A07049-1. Tested in ELISA, Flow Cytometry, IP, IF, IHC, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IP, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	Q9NY12

Technical Details

Immunogen	E.coli-derived human NOLA1/GAR1 recombinant protein (Position: F58-K165).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

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Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Immunoprecipitation, 0.5-2 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Human ELISA, 0.1-0.5 ug/ml, -

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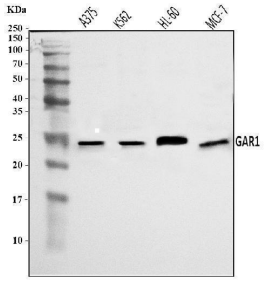
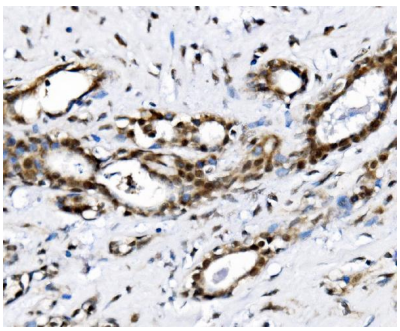
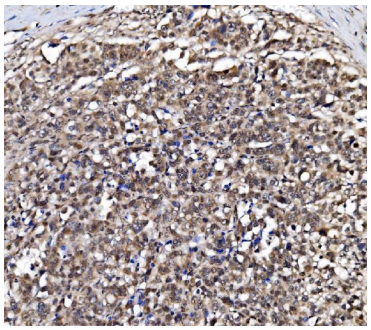
Anti-NOLA1/GAR1 Antibody Picoband® (A07049-1) Images



Western blot analysis of NOLA1/GAR1 using anti-NOLA1/GAR1 antibody (A07049-1). 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 30 ug of sample under reducing conditions. Lane 1: human A375 whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human HL-60 whole cell lysates, Lane 4: human MCF-7 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-NOLA1/GAR1 antigen affinity purified polyclonal antibody (Catalog # A07049-1) 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 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for NOLA1/GAR1 at approximately 25 kDa. The expected band size for NOLA1/GAR1 is at 22 kDa.



IHC analysis of NOLA1/GAR1 using anti-NOLA1/GAR1 antibody (A07049-1). NOLA1/GAR1 was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NOLA1/GAR1 Antibody (A07049-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of NOLA1/GAR1 using anti-NOLA1/GAR1 antibody (A07049-1). NOLA1/GAR1 was detected in a paraffin-embedded section of human gastric carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NOLA1/GAR1 Antibody (A07049-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

IHC analysis of NOLA1/GAR1 using anti-NOLA1/GAR1 antibody (A07049-1). NOLA1/GAR1 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA

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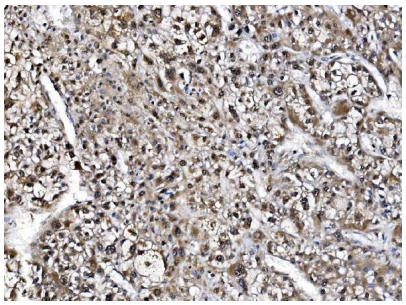
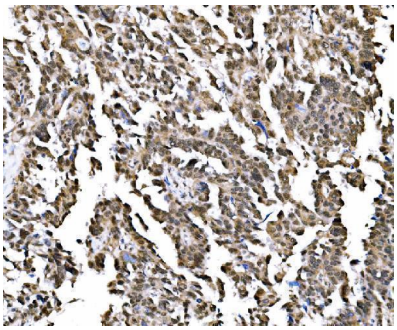
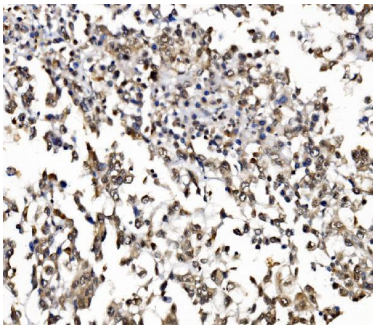


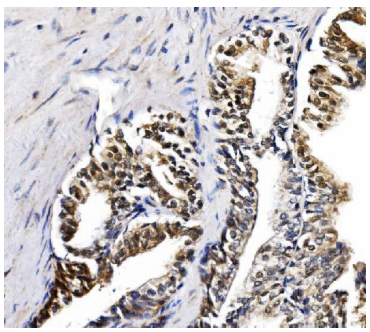
buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NOLA1/GAR1 Antibody (A07049-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of NOLA1/GAR1 using anti-NOLA1/GAR1 antibody (A07049-1). NOLA1/GAR1 was detected in a paraffin-embedded section of human ovarian adenoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NOLA1/GAR1 Antibody (A07049-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of NOLA1/GAR1 using anti-NOLA1/GAR1 antibody (A07049-1). NOLA1/GAR1 was detected in a paraffin-embedded section of human pancreatic cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NOLA1/GAR1 Antibody (A07049-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of NOLA1/GAR1 using anti-NOLA1/GAR1 antibody (A07049-1). NOLA1/GAR1 was detected in a paraffin-embedded section of human prostate cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NOLA1/GAR1 Antibody (A07049-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

IHC analysis of NOLA1/GAR1 using anti-NOLA1/GAR1 antibody (A07049-1). NOLA1/GAR1 was detected in a paraffin-embedded section of human glioma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then

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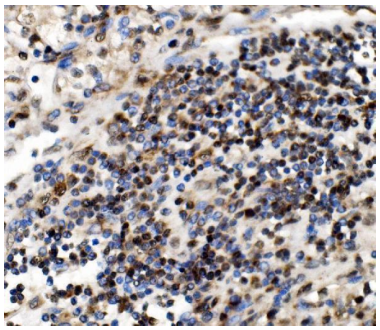
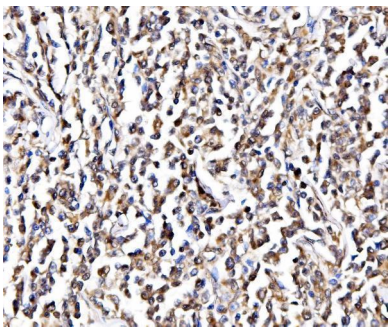
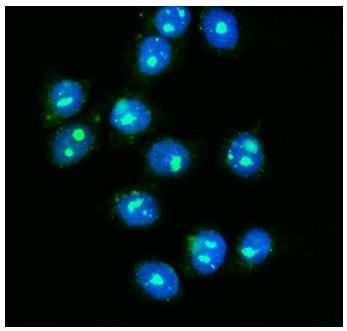


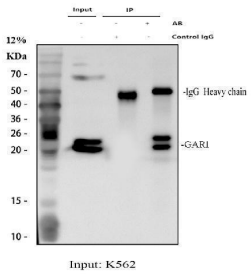
incubated with 2 ug/ml rabbit anti-NOLA1/GAR1 Antibody (A07049-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of NOLA1/GAR1 using anti-NOLA1/GAR1 antibody (A07049-1). NOLA1/GAR1 was detected in a paraffin-embedded section of human lymphoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NOLA1/GAR1 Antibody (A07049-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IF analysis of NOLA1/GAR1 using anti-NOLA1/GAR1 antibody (A07049-1). NOLA1/GAR1 was detected in an immunocytochemical section of MCF-7 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-NOLA1/GAR1 Antibody (A07049-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Input: K562

Immunoprecipitating (IP) NOLA1/GAR1 in K562 whole cell lysate. Western blot analysis of NOLA1/GAR1 using anti-NOLA1/GAR1 antibody (A07049-1); Lane 1: K562 whole cell lysates (30ug); Lane 2: Rabbit control IgG instead of anti-NOLA1/GAR1 antibody in K562 whole cell lysate; Lane 3: anti-NOLA1/GAR1 antibody (2ug) + K562 whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-NOLA1/GAR1 antigen affinity purified polyclonal antibody (A07049-1) at a dilution of 0.5 ug/mL and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1196-200). A specific band was detected for NOLA1/GAR1 at approximately 23-25 kDa. The expected band size for NOLA1/GAR1 is at 22 kDa.

Flow Cytometry analysis of K562 cells using anti-NOLA1/GAR1 antibody (A07049-1). Overlay histogram

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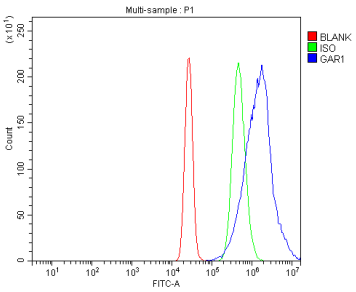

showing K562 cells stained with A07049-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-NOLA1/GAR1 Antibody (A07049-1, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Anti-NOLA1/GAR1 Antibody

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