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BOSTER BIOLOGICAL TECHNOLOGY
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Anti-NT5DC3 Antibody Picoband®

Catalog Number: A15406-1

About NT5DC3

5'-Nucleotidase domain containing 2 (NT5DC2) is a member of the NT5DC family and contains a haloacid dehalogenase motif localized in the N-terminus of these proteins. NT5DC2 shows high sequence similarity with NT5C2. NT5C2 has received attention in the field of hematological neoplasms because NT5C2 mutations have been demonstrated to drive resistance to thiopurine, a drug frequently used to treat hematological neoplasms. NT5C2 catalyzes purine-nucleotide metabolism and induces chemotherapeutic resistance via excess export of purines to the extracellular space and depletion of the intracellular purine-nucleotide pool. Therefore, NT5DC2 may also participate in purine-nucleotide metabolism and exert purine-nucleotide catalytic activity. NT5DC2 overexpression promotes HCC cell proliferation and clone formation by regulating the cell cycle and promoting tumor growth in subcutaneous xenografts, while NT5DC2 knockdown inhibits these processes. NT5DC2 is associated with attention-deficit/hyperactivity disorder and bipolar disorder. NT5DC2 interacts with tyrosine hydroxylase (TH) to regulate TH catalytic activity and thus regulate catecholamine synthesis. NT5DC2 has been shown to interact with and stabilize Fyn, an Src family proto-oncogene, and plays a role in regulating glioblastoma progression.

Overview

Product Name	Anti-NT5DC3 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-NT5DC3 Antibody Picoband® catalog # A15406-1. Tested in ELISA, WB, Flow Cytometry 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, 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	Q86UY8

Technical Details

Immunogen	E.coli-derived human NT5DC3 recombinant protein (Position: D52-K548).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.

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Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Human ELISA, 0.1-0.5 ug/ml, -

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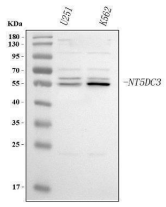
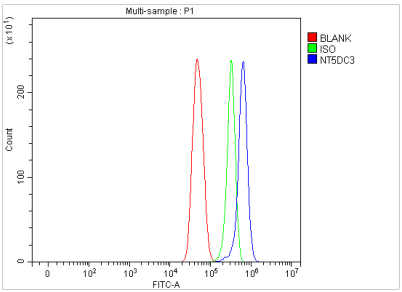
Anti-NT5DC3 Antibody Picoband® (A15406-1) Images



Western blot analysis of NT5DC3 using anti-NT5DC3 antibody (A15406-1). 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 U251 whole cell lysates, Lane 2: human K562 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-NT5DC3 antigen affinity purified polyclonal antibody (Catalog # A15406-1) 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 NT5DC3 at approximately 55 kDa. The expected band size for NT5DC3 is at 63,55 kDa.



Flow Cytometry analysis of U251 cells using anti-NT5DC3 antibody (A15406-1). Overlay histogram showing U251 cells stained with A15406-1 (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-NT5DC3 Antibody (A15406-1, 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 (Red line) was also used as a control.

Anti-NT5DC3 Antibody

For Research Use Only. Not for use in diagnostic procedures.