

Anti-DRD5 Antibody Picoband®

Catalog Number: A03010-1

About DRD5

D(1B) dopamine receptor(DRD5), also called DRD1B or DRD1L2 is a protein that in humans is encoded by the DRD5 gene. This gene is mapped to 4p16.1. This gene encodes the D5 subtype of the dopamine receptor. The D5 subtype is a G-protein coupled receptor which stimulates adenylyl cyclase. This receptor is expressed in neurons in the limbic regions of the brain. It has a 10-fold higher affinity for dopamine than the D1 subtype. Pseudogenes related to this gene reside on chromosomes 1 and 2. Compared with DRD1, DRD5 displayed a higher affinity for dopamine and was able to stimulate a biphasic rather than a monophasic intracellular accumulation of cAMP.

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Overview

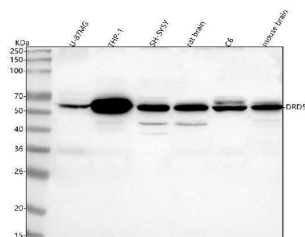
Product Name	Anti-DRD5 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-DRD5 Antibody Picoband® catalog # A03010-1. Tested in WB, FCM, ELISA applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees 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 Na ₂ HPO ₄ .
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	P21918

Technical Details

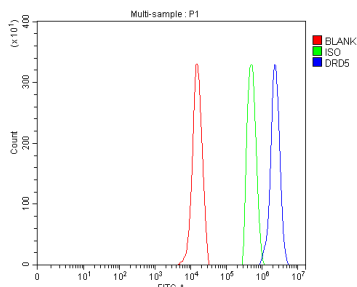
Immunogen	E.coli-derived human DRD5 recombinant protein (Position: M1-H477). Human DRD5 shares 82.3% and 82.4% amino acid (aa) sequence identity with mouse and rat DRD5, respectively.
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Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent 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.
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, Mouse, Rat Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5 ug/ml, - Note: For flow cytometry (FCM), validated for fixed cells only. Not validated for FACS or surface flow cytometry using live cells.

Anti-DRD5 Antibody Picoband® (A03010-1) Images



Western blot analysis of DRD5 using anti-DRD5 antibody (A03010-1). 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 U-87MG whole cell lysates, Lane 2: human THP-1 whole cell lysates, Lane 3: human SH-SY5Y whole cell lysates, Lane 4: rat brain tissue lysates, Lane 5: rat C6 whole cell lysates, Lane 6: mouse brain tissue 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-DRD5 antigen affinity purified polyclonal antibody (Catalog # A03010-1) 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 DRD5 at approximately 58 kDa. The expected band size for DRD5 is at 53 kDa.



Flow Cytometry analysis of U937 cells using anti-DRD5 antibody (A03010-1). Overlay histogram showing U937 cells stained with A03010-1 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-DRD5 Antibody (A03010-1, 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-DRD5 Antibody

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