

Anti-5HT1B/HTR1B Antibody Picoband™

Catalog Number: A01826-2

About HTR1B

5-hydroxytryptamine receptor 1B also known as the 5-HT1B receptor is a protein that in humans is encoded by the HTR1B gene. The protein encoded by this intronless gene is a G-protein coupled receptor for serotonin (5-hydroxytryptamine). Ligand binding activates second messengers that inhibit the activity of adenylate cyclase and manage the release of serotonin, dopamine, and acetylcholine in the brain. The encoded protein may be involved in several neuropsychiatric disorders and therefore is often a target of antidepressant and other psychotherapeutic drugs.

Overview

Product Name	Anti-5HT1B/HTR1B Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-5HT1B/HTR1B Antibody Picoband™ catalog # A01826-2. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, Flow Cytometry, IHC, 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	P28222

Technical Details

Immunogen	E.coli-derived human 5HT1B/HTR1B recombinant protein (Position: A35-S390).
Predicted Reactive Species	Human
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).
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 ug/ml.
Purification	Immunogen affinity purified.

Suggested Dilutions

Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.

If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.

Some PubMed article(s) citing the expression level of this target are as follows:

Boster Bio's internal QC testing used:

Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat

Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human, Mouse, Rat

Flow Cytometry, 1-3 ug/ 1×10^6 cells, Human

Direct ELISA, 0.1-0.5 ug/ml, Human

Anti-5HT1B/HTR1B Antibody Picoband™ (A01826-2) Images

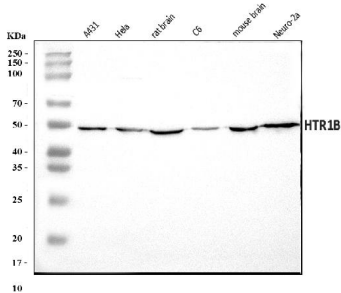


Figure 1. Western blot analysis of 5HT1B/HTR1B using anti-5HT1B/HTR1B antibody (A01826-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human A431 whole cell lysates,
Lane 2: human Hela whole cell lysates,
Lane 3: rat brain tissue lysates,
Lane 4: rat C6 whole cell lysates,
Lane 5: mouse brain tissue lysates,
Lane 7: mouse Neuro-2a 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-5HT1B/HTR1B antigen affinity purified polyclonal antibody (Catalog # A04887-1) 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 5HT1B/HTR1B at approximately 50 kDa. The expected band size for 5HT1B/HTR1B is at 50 kDa.

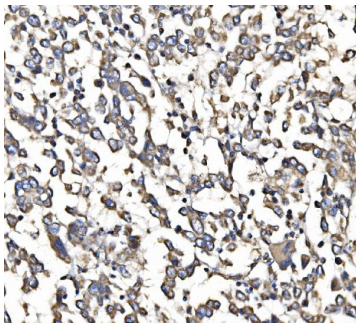


Figure 2. IHC analysis of 5HT1B/HTR1B using anti-5HT1B/HTR1B antibody (A01826-2). 5HT1B/HTR1B was detected in a paraffin-embedded section of human pancreatic cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-5HT1B/HTR1B Antibody (A01826-2) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

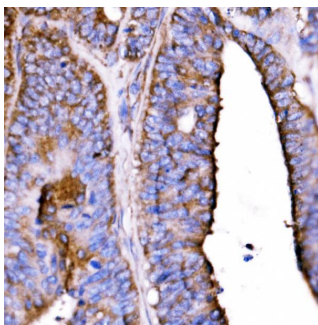


Figure 3. IHC analysis of 5HT1B/HTR1B using anti-5HT1B/HTR1B antibody (A01826-2). 5HT1B/HTR1B was detected in a paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-5HT1B/HTR1B Antibody (A01826-2) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the

chromogen.

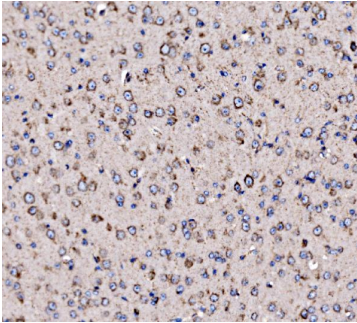


Figure 4. IHC analysis of 5HT1B/HTR1B using anti-5HT1B/HTR1B antibody (A01826-2). 5HT1B/HTR1B was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-5HT1B/HTR1B Antibody (A01826-2) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

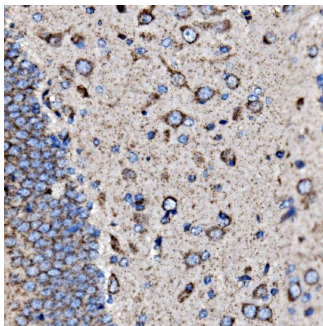


Figure 5. IHC analysis of 5HT1B/HTR1B using anti-5HT1B/HTR1B antibody (A01826-2). 5HT1B/HTR1B was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-5HT1B/HTR1B Antibody (A01826-2) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

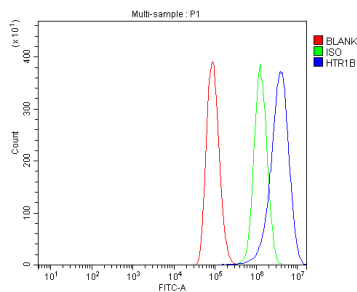


Figure 6. Flow Cytometry analysis of A549 cells using anti-5HT1B/HTR1B antibody (A01826-2). Overlay histogram showing A549 cells stained with A01826-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-5HT1B/HTR1B Antibody (A01826-2, 1 ug/1x10⁶ cells) 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.

2 Publications Citing This Product

1. PubMed ID: 10.1111/j.1742-7843.2012.00933.x, Fluoxetine Attenuates Chronic Methamphetamine-induced Pulmonary Arterial Remodelling: Possible Involvement of Serotonin Transporter and Serotonin 1B Receptor
2. PubMed ID: 30315688, Ren S, Chen M, Yang L, Liu Z. 5-Hydroxytryptamine and Dopamine Neurons in the Cerebellum of the New-Hatching Yangtze Alligator Alligator sinensis. Anat Rec (Hoboken). 2019 Jun;302(6):861-868. doi:10.1002/ar.23982. Epub 2018 Nov 13. PMID:30315688.

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