

Anti-5HT1A Receptor/HTR1A Antibody

Catalog Number: PA1647

About HTR1A

HTR1A (5-HYDROXYTRYPTAMINE RECEPTOR 1A), also called SEROTONIN 5-HT-1A RECEPTOR or BETA-2-ADRENERGIC RECEPTOR-LIKE PROTEIN G-21, is a subtype of 5-HT receptor that binds the endogenous neurotransmitter serotonin. It is a G protein-coupled receptor (GPCR) that is coupled to Gi/Go and mediates inhibitory neurotransmission. HTR1A denotes the human gene encoding for the receptor. The HTR1A gene is located at 5q12.3. The decreases in 5-HT-1A receptor densities correlated with decreased glucose utilization as measured by PET scan. Activation of 5-HT-1A receptors has been demonstrated to impair cognition, learning, and memory by inhibiting the release of glutamate and acetylcholine in various areas of the brain. 5-HT-1A receptors in the dorsal raphe nucleus are co-localized with neurokinin 1 (NK1) receptors and have been shown to inhibit the release of substance P, their endogenous ligand.

Overview

Product Name	Anti-5HT1A Receptor/HTR1A Antibody
Reactive Species	Human, Rat
Description	Boster Bio Anti-5HT1A Receptor/HTR1A Antibody catalog # PA1647. Tested in IHC, WB applications. This antibody reacts with Human, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	Store 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 freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P08908

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human 5HT1A Receptor, different from the related rat and mouse sequences by one amino acid.
Predicted Reactive Species	Hamster
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	<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>Western blot, 0.1-0.5ug/ml, Human, Rat</p> <p>Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, Rat, By Heat</p>

Anti-5HT1A Receptor/HTR1A Antibody (PA1647) Images

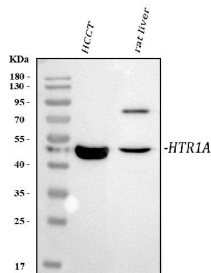


Figure 1. Western blot analysis of HTR1A using anti-HTR1A antibody (PA1647).

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 hepatocellular carcinoma tumor tissue (HCCT) lysates,

Lane 2: rat liver 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-HTR1A antigen affinity purified polyclonal antibody (Catalog # PA1647) 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 HTR1A at approximately 46 kDa. The expected band size for HTR1A is at 46 kDa.

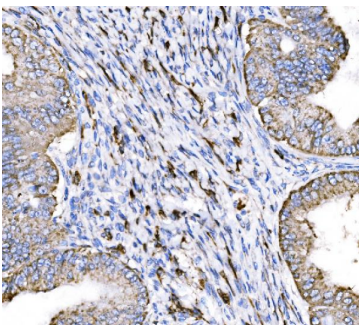


Figure 2. IHC analysis of HTR1A using anti-HTR1A antibody (PA1647).

HTR1A was detected in a paraffin-embedded section of human endometrial adenocarcinoma 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-HTR1A Antibody (PA1647) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

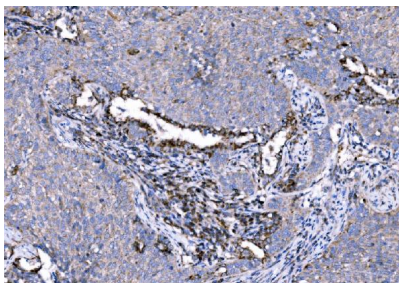
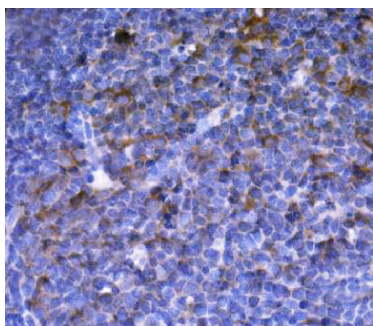


Figure 3. IHC analysis of HTR1A using anti-HTR1A antibody (PA1647).

HTR1A was detected in a paraffin-embedded section of human lung 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-HTR1A Antibody (PA1647) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

Figure 4. IHC analysis of HTR1A using anti-HTR1A antibody



(PA1647).

HTR1A was detected in a paraffin-embedded section of rat lymphaden 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-HTR1A Antibody (PA1647) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

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