

Anti-Serotonin transporter/SLC6A4 Antibody Picoband™

Catalog Number: PB9438

About SLC6A4

SLC6A4 (Solute carrier family 6, member 4), also known as SERT (serotonin transporter), is a monoamine transporter protein. The SLC6A4 gene spans 31 kb and contains 14 exons. This protein integral membrane protein transports the neurotransmitter serotonin from synaptic spaces into presynaptic neurons. This transport of serotonin by the SERT protein terminates the action of serotonin and recycles it in a sodium-dependent manner. This protein is the target of many antidepressant medications, including those of the SSRI class. It is a member of the sodium: neurotransmitter symporter family. A repeat length polymorphism in the promoter of this gene has been shown to affect the rate of serotonin uptake and may play a role in sudden infant death syndrome, aggressive behavior in Alzheimer disease patients, post-traumatic stress disorder and depression-susceptibility in people experiencing emotional trauma.

Overview

Product Name	Anti-Serotonin transporter/SLC6A4 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Serotonin transporter/SLC6A4 Antibody Picoband™ catalog # PB9438. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	P31645

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human SLC6A4, different from the related mouse and rat sequences by six amino acids.
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	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, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Rat, By Heat

Anti-Serotonin transporter/SLC6A4 Antibody Picoband™ (PB9438) Images

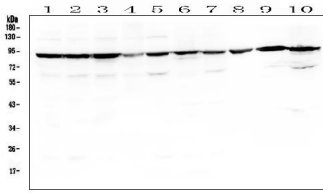


Figure 1. Western blot analysis of SLC6A4 using anti-SLC6A4 antibody (PB9438).

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 50ug of sample under reducing conditions.

Lane 1: human HepG whole cell lysates,
Lane 2: human Caco-2 whole cell lysates,
Lane 3: human SW620 whole cell lysates,
Lane 4: human COLO-320 whole cell lysates.
Lane 5: human K562 whole cell lysates,
Lane 6: human U2OS whole cell lysates,
Lane 7: human U-87MG whole cell lysates,
Lane 8: rat heart tissue lysates,
Lane 9: mouse heart tissue lysates,
Lane 10: mouse SP20 whole cell lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-SLC6A4 antigen affinity purified polyclonal antibody (Catalog # PB9438) 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 1:10000 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 SLC6A4 at approximately 90KD. The expected band size for SLC6A4 is at 70KD.

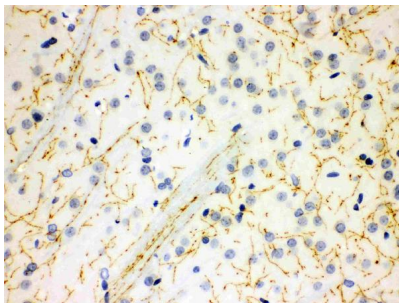


Figure 2. IHC analysis of SLC6A4 using anti-SLC6A4 antibody (PB9438). SLC6A4 was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SLC6A4 Antibody (PB9438) 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.

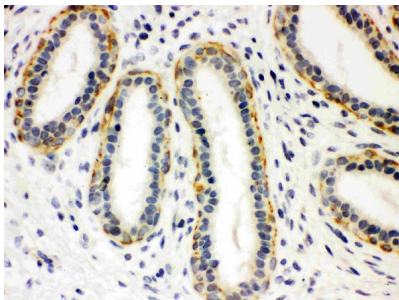


Figure 3. IHC analysis of SLC6A4 using anti-SLC6A4 antibody (PB9438). SLC6A4 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SLC6A4 Antibody (PB9438) 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.

1 Publications Citing This Product

1. PubMed ID: 31452710, Liu ZJ, Liu H, Wu C, Xue K. Effect of sepsis on the action potential and cardiac serotonin response in rats. Exp Ther Med. 2019 Sep;18(3):2207-2212. doi:10.3892/etm.2019.7810. Epub 2019 Jul 25. PMID:31452710; PMCID:PMC6704535.

Visit bosterbio.com/anti-slc6a4-picoband-trade-antibody-pb9438-boster.html to see all 1 publications.

Submit a product review to Biocompare.com

Submit a review of this product to Biocompare.com to receive a \$20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.



Anti-Serotonin transporter/SLC6A4 Antibody [™]