

Anti-VGLUT2/SLC17A6 Antibody Picoband®

Catalog Number: A04376-1

About SLC17A6

Solute carrier family 17 (vesicular glutamate transporter), member 6 is a protein that in humans is encoded by the SLC17A6 gene. The SLC17A6 gene, also known as vesicular glutamate transporter 2 (VGLUT2), encodes a protein responsible for transporting the neurotransmitter glutamate into synaptic vesicles in neurons. This process is crucial for glutamatergic neurotransmission, which plays a fundamental role in synaptic communication and neuronal excitability. SLC17A6/VGLUT2 is primarily expressed in excitatory neurons in various regions of the brain, including the cerebral cortex, hippocampus, and thalamus. Dysregulation of SLC17A6 expression or function has been implicated in neurological disorders such as epilepsy, schizophrenia, and Parkinson's disease, highlighting its significance in brain function and disease pathology. Understanding the molecular mechanisms underlying SLC17A6/VGLUT2 function is essential for unraveling its role in normal synaptic transmission and its potential as a therapeutic target for neurological disorders.

Overview

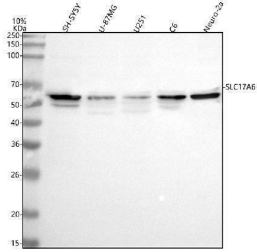
Product Name	Anti-VGLUT2/SLC17A6 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-VGLUT2/SLC17A6 Antibody Picoband® catalog # A04376-1. Tested in WB, ELISA applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody 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, 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	Q9P2U8

Technical Details

Immunogen	E.coli-derived human VGLUT2/SLC17A6 recombinant protein (Position: M1-K561). Human SLC17A6 shares 98.4% and 98.6% amino acid (aa) sequence identity with mouse and rat SLC17A6, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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 ELISA, 0.1-0.5 ug/ml, -

Anti-VGLUT2/SLC17A6 Antibody Picoband® (A04376-1) Images



Western blot analysis of VGLUT2/SLC17A6 using anti-VGLUT2/SLC17A6 antibody (A04376-1). 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 SH-SY5Y whole cell lysates, Lane 2: human U-87MG whole cell lysates, Lane 3: human U251 whole cell lysates, Lane 4: rat C6 whole cell lysates, Lane 5: 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-VGLUT2/SLC17A6 antigen affinity purified polyclonal antibody (Catalog # A04376-1) 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 VGLUT2/SLC17A6 at approximately 64 kDa. The expected band size for VGLUT2/SLC17A6 is at 64 kDa.

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