Datasheet for ABIN2483717

anti-SLC17A7 antibody (AA 493-560) (Atto 488)

3 Images

Overview

Quantity:	100 µg
Target:	SLC17A7
Binding Specificity:	AA 493-560
Reactivity:	Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This SLC17A7 antibody is conjugated to Atto 488
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Immunogen:	Fusion protein amino acids 493-560 (cytoplasmic C-terminus) of rat VGlut1
Clone:	S28-9
Isotype:	IgG1
Specificity:	Detects ~52 kDa. No cross-reactivity against VGlut2.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Protein G Purified

Target Details

Target:	SLC17A7
Alternative Name:	VGLUT1 (SLC17A7 Products)

Target Details

Background:	VGLUT1 is expressed in a subset of glutamate neurons and transports glutamate into native synaptic vesicles from the brain, exhibiting a conductance for chloride that is blocked by glutamate (1). Vesicular glutamate transport has a substantially lower apparent affinity than the plasma membrane excitatory amino acid transporters. Glutamate transport by VGLUT1 is saturated with a K(m) of approximately 2 mM, in the same range as transport by synaptic vesicles. Finally, plasma membrane glutamate transporters recognize both aspartate and glutamate as substrates, whereas VGLUT1 does not recognize aspartate (2).
Gene ID:	116638
NCBI Accession:	NP_446311
UniProt:	Q62634

Application Details

Application Notes:	• WB (1:1000) • optimal dilutions for assays should be determined by the user.
Comment:	1 µg/ml of ABIN2483717 was sufficient for detection of VGLut1 in 20 µg of rat brain lysate by colorimetric immunoblot analysis using goat anti-mouse IgG:HRP as the secondary antibody.
Restrictions:	For Research Use only

Handling

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Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Conjugated antibodies should be stored at 4°C
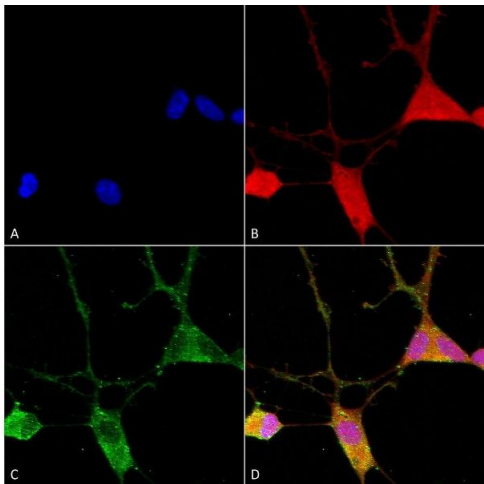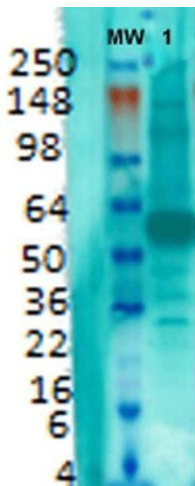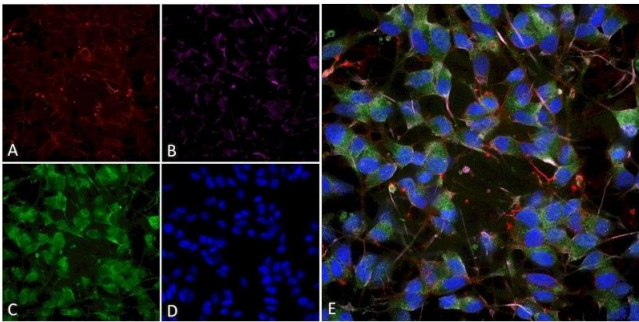
Images

Immunocytochemistry

Image 1. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-VGLUT1 Monoclonal Antibody, Clone S28-9 (ABIN2483717). Tissue: Differentiated SH-SY5Y. Species: Human. Primary Antibody: Mouse Anti-VGLUT1 Monoclonal Antibody (ABIN2483717) at 1:100. Secondary Antibody: AlexaFluor 488. Counterstain: phalloidin (Alexa 647, red), beta tubulin (Anti-beta III Tubulin Ab, Alexa 555, magenta) Hoechst (blue). (A) Phalloidin (B) Anti-beta III Tubulin Ab. (C) VGLUT1 Antibody. (D) Hoechst (E) Composite.

Western Blotting

Image 2. Western Blot analysis of Rat brain membrane lysate showing detection of VGLUT1 protein using Mouse Anti-VGLUT1 Monoclonal Antibody, Clone S28-9 . Primary Antibody: Mouse Anti-VGLUT1 Monoclonal Antibody at 1:1000.

Immunocytochemistry

Image 3. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-VGLUT1 Monoclonal Antibody, Clone S28-9 (ABIN2483717). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4 % PFA for 15 min. Primary Antibody: Mouse Anti-VGLUT1 Monoclonal Antibody (ABIN2483717) at 1:100 for overnight at 4 °C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain, Hoechst (blue) nuclear stain at 1:800, 1.6 mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) VGLUT1 Antibody (D) Composite.