

VGLUT1 Antibody
VGLUT1 Antibody, Clone S28-9
Catalog # ASM10228**Specification**

VGLUT1 Antibody - Product Information

Application	WB
Primary Accession	Q62634
Other Accession	NP_446311.1
Host	Mouse
Isotype	IgG1
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal

Description

Mouse Anti-Rat VGLUT1 Monoclonal IgG1

Target/Specificity

Detects ~52kDa. No cross-reactivity against VGlut2.

Other Names

BNPI Antibody, SLC17A1 Antibody, SLC17A1/VGLUT1 Antibody, Solute Carrier family 17 member 7 Antibody, Vesicular glutamate transporter 1 Antibody, VGLUT 1 Antibody, Brain-specific Na(+)-dependent inorganic phosphate cotransporter Antibody

Immunogen

Fusion protein amino acids 493-560 (cytoplasmic C-terminus) of rat VGlut1

Purification

Protein G Purified

Storage **-20°C**

Storage Buffer

PBS pH7.4, 50% glycerol, 0.09% sodium azide

Shipping Temperature

Blue Ice or 4°C

Certificate of Analysis

1 µg/ml of SMC-394 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.

Cellular Localization

Cytoplasmic Vesicle | Secretory Vesicle | Synaptic Vesicle Membrane | Membrane | Cell Junction | Synapse

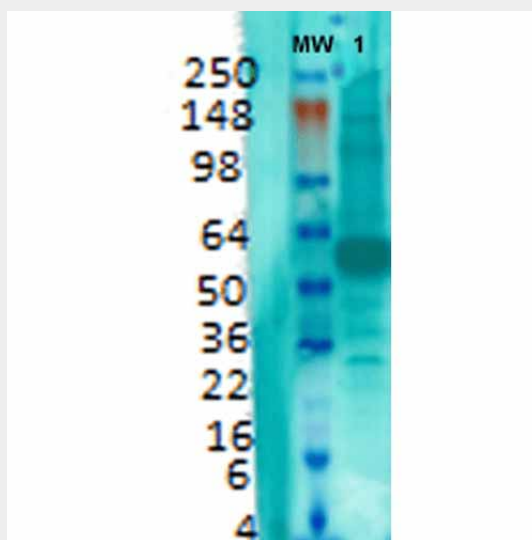
VGLUT1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)

- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

VGLUT1 Antibody - Images



Western Blot analysis of Rat brain membrane lysate showing detection of VGLUT1 protein using Mouse Anti-VGLUT1 Monoclonal Antibody, Clone S28-9 (ASM10228). Primary Antibody: Mouse Anti-VGLUT1 Monoclonal Antibody (ASM10228) at 1:1000.

VGLUT1 Antibody - 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).

VGLUT1 Antibody - References

1. Wojcik S.M., et al. (2004) PNAS. 101(18): 7158-7163.
2. Shigeri Y., Seal R.P., Shimamoto K. (2004) Brain Res Rev. 45(3): 250-265.