

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human VIAAT/SLC32A1 in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 731307
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human VIAAT/SLC32A1 Ala2-Phe133 Accession # Q9H598
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

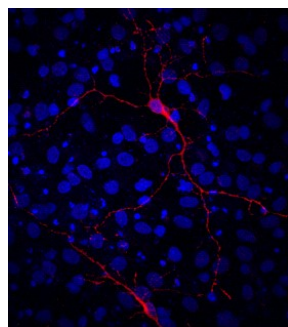
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Immunocytochemistry	8-25 µg/mL	See Below

DATA

Immunocytochemistry



VIAAT/SLC32A1 in Rat Cortical Stem Cells.
VIAAT/SLC32A1 was detected in immersion fixed 7-day differentiated rat cortical stem cells using Mouse Anti-Human VIAAT/SLC32A1 Monoclonal Antibody (Catalog # MAB6847) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to neurons. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

VIAAT (Vesicular inhibitory amino acid transporter; also VGAT and SLC32A1) is a 56-58 kDa member of the amino acid/polyamine transporter 2 family of proteins. It is expressed in inhibitory neurons throughout the CNS, in both resting and activated lymphocytes, and in pancreatic α-cells (in rodent). VIAAT is believed to transport both GABA and glycine across synaptic vesicle membranes in an electrical and pH gradient-dependent manner. Once transported, these neurotransmitters are released at the presynaptic membrane, acting as inhibitory factors in the mature nervous system, and excitatory factors in the immature nervous system. Human VIAAT is a 525 amino acid (aa) 10-transmembrane nonglycosylated protein. The N-terminus (aa 1-133) and C-terminus (aa 511-525) are cytoplasmic. There is a 52 kDa short form that is not well characterized. Over aa 2-133, human VIAAT shares 95% aa identity with mouse VIAAT.