

#### DESCRIPTION

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|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human VIAAT/SLC32A1 in direct ELISAs.                                                                                                                                                                                                                               |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>1</sub> Clone # 731307                                                                                                                                                                                                                            |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human VIAAT/SLC32A1<br>Ala2-Phe133<br>Accession # Q9H598                                                                                                                                                                                |
| <b>Conjugate</b>          | Alexa Fluor 350<br>Excitation Wavelength: 346 nm<br>Emission Wavelength: 442 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### 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.

**Immunocytochemistry** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### 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  $\alpha$ -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.

#### PRODUCT SPECIFIC NOTICES

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