



PhosphoSolutions®
Antibodies that work™

Colorado Biosciences Park
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Aurora, CO 80045-7337
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Anti-Vesicular GABA Amino Acid Transporter (VGAT)

Catalog Number: 2100-VGAT

Size: 100 µl

Product Description: Affinity purified rabbit polyclonal antibody

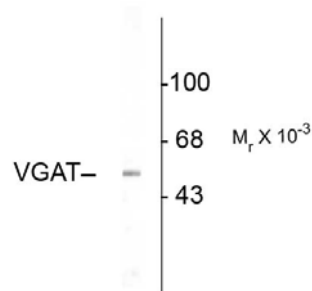
Applications: WB: 1:1000

Antigen: Peptide corresponding to amino acid residues from the N-terminal region of rat Vesicular GABA Amino Acid Transporter (VGAT).

Species reactivity: The antibody has been directly tested for reactivity in rat tissue. It is anticipated that the antibody will also work with bovine, canine and non-human primate tissues based on the fact that these species have 100% homology with the amino acid sequence used as antigen.

Biological Significance: The Vesicular GABA Amino Acid Transporter (VGAT) is responsible for transport of the inhibitory neurotransmitter into synaptic vesicles (McIntire et al., 1997). The VGAT protein (also known as the Vesicular Inhibitory Amino Acid Transporter or VIAAT) is expressed in synaptic vesicles of both glycine and GABAergic synapses throughout the CNS (Chaudhry et al., 1998). Expression of the VGAT protein changes during development and also in response to patterns of neuronal activity (De et al., 2005).

Anti-Vesicular GABA Transporter (VGAT)



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~53k VGAT protein.

Purification Method: Prepared from rabbit serum by affinity purification on a column made with the peptide used as antigen.

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WB = Western Blot **IF** = Immunofluorescence **IHC** = Immunohistochemistry **IP** = Immunoprecipitation

Packaging: 100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol. Adequate amount of material to conduct 10-mini Western Blots.

Storage and Stability: Store at -20°C; stable for at least one year.

Shipment: Domestic - Blue Ice; International - Blue Ice or Dry Ice.

Antibody Specificity: Specific for the ~53k VGAT protein.

Quality Control Tests: Western blots performed on each lot.

References:

Chaudhry FA, Reimer RJ, Bellocchio EE, Danbolt NC, Osen KK, Edwards RH, Storm-Mathisen J (1998) The vesicular GABA transporter, VGAT, localizes to synaptic vesicles in sets of glycinergic as well as GABAergic neurons. *J Neurosci* 18:9733-9750.

De GS, Schafer MK, Defamie N, Chen C, Ricci A, Weihe E, Varoqui H, Erickson JD (2005) Homeostatic scaling of vesicular glutamate and GABA transporter expression in rat neocortical circuits. *J Neurosci* 25:7121-7133.

McIntire SL, Reimer RJ, Schuske K, Edwards RH, Jorgensen EM (1997) Identification and characterization of the vesicular GABA transporter. *Nature (Lond)* 389:870-876.

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