

## VGAT cytoplasmic domain

Cat.No. 131 008; Recombinant rabbit antibody, 50 µg purified IgG (lyophilized)

### Data Sheet

Reconstitution/Storage	50 µg purified IgG, lyophilized. Albumin was added for stabilization. For reconstitution add 50 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	<b>WB:</b> 1 : 1000 up to 1 : 2000 AP staining (see remarks) <b>ICC:</b> 1 : 500 up to 1 : 1000 <b>IHC:</b> 1 : 500 up to 1 : 1000 <b>IHC-P/FFPE:</b> 1 : 500 up to 1 : 1000 (see remarks)
Clone	Rb117G4
Subtype	IgG1 (κ light chain)
Immunogen	Synthetic peptide corresponding to AA 75 to 87 from rat VGAT (UniProt Id: O35458)
Epitop	Epitop: AA 75 to 87 from rat VGAT (UniProt Id: O35458)
Reactivity	Reacts with: human (Q9H598), rat (O35458), mouse (O35633). Other species not tested yet.
Specificity	Specific for VGAT (K.O. verified)
matching control	131-0P
Remarks	This antibody is a chimeric antibody based on the well known monoclonal mouse antibody clone 117G4. The constant regions of the heavy and light chains have been replaced with rabbit specific sequences. Therefore, the antibody can be used with standard anti-rabbit secondary reagents. The antibody has been expressed in mammalian cells.  <b>WB:</b> VGAT aggregates after boiling, making it necessary to run SDS-PAGE only with non-boiled samples.  <b>IHC-P:</b> Antigen retrieval at pH 9.0 (10 mM Tris pH 9.0, 1mM EDTA, 0.05 % Tween20) is recommended.

### Selected General References

The vesicular GABA transporter, VGAT, localizes to synaptic vesicles in sets of glycinergic as well as GABAergic neurons. Chaudhry FA, Reimer RJ, Bellocchio EE, Danbolt NC, Osen KK, Edwards RH, Storm-Mathisen J. The Journal of neuroscience : the official journal of the Society for Neuroscience (1998) 18(23): 9733-50.

Identification and characterization of the vesicular GABA transporter. McIntire SL, Reimer RJ, Schuske K, Edwards RH, Jorgensen EM. Nature (1997) 389(6653): 870-6.

Cloning of a functional vesicular GABA and glycine transporter by screening of genome databases. Sagné C, El Mestikawy S, Isambert MF, Hamon M, Henry JP, Giros B, Gasnier B. FEBS letters (1997) 417(2): 177-83.

Uptake of GABA by rat brain synaptic vesicles isolated by a new procedure. Hell JW, Maycox PR, Stadler H, Jahn R. The EMBO journal (1988) 7(10): 3023-9.

**TO BE USED IN VITRO / FOR RESEARCH ONLY**  
**NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

The vesicular **GABA** transporter **VGAT** is responsible for uptake and storage of GABA and glycine by synaptic vesicles in the central nervous system. For this reason it is frequently referred to as the vesicular inhibitory amino acid transporter **VIAAT**. It is different from the plasma membrane transporters in that it is driven by a proton electrochemical gradient across the vesicle membrane. So far, only one isoform is known. VGAT is currently the best marker for inhibitory nerve terminals.