

VGAT luminal domain

Cat.No. 131 103AF; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen, fluorescence-labeled with AcidiFluor Orange . Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H ₂ O to get a 1mg/ml solution in PBS. Either add 1:1 (v/v) glycerol, then aliquot and store at -20°C until use, or store aliquots at -80°C without additives. Reconstitute immediately upon receipt! Avoid bright light when working with the antibody to minimize photo bleaching of the fluorescent dye.
Applications	WB: N/A IP: N/A ICC: 1 : 100 up to 1 : 300 (see remarks) IHC: not tested yet IHC-P/FFPE: not tested yet
Label	AcidiFluor Orange
Immunogen	Synthetic peptide corresponding to AA 510 to 525 from rat VGAT (UniProt Id: O35458)
Reactivity	Reacts with: mouse (O35633), rat (O35458). Other species not tested yet.
Specificity	specific for VGAT
Remarks	ICC: This antibody is intended for direct labeling of recycling synaptic vesicles at inhibitory nerve terminals in living primary neuronal cultures. The pH sensitive dye regains its fluorescence after the reacidification of the synaptic vesicle lumen. For further details see Martens et al. 2008.

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 **v**esicular inhibitory **a**mino**a**cid 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.

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
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