VGAT cytoplasmic domain

Cat.No. 131 013; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

<table>
<thead>
<tr>
<th>Reconstitution/Storage</th>
<th>50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.</th>
</tr>
</thead>
</table>
| Applications           | WB: 1 : 1000 (AP staining)  
                          | IP: yes  
                          | IHC: 1 : 500  
                          | IHC-P/FFPE: not tested yet  
                          | EM: yes This antibody is first choice for electron microscopy. |
| Immunogen              | Recombinant protein corresponding to AA 2 to 115 from rat VGAT (UniProt Id: O35458) |
| Reactivity             | Reacts with: rat (O35458), mouse (O35633), zebrafish. Other species not tested yet. |
| Specificity            | Specific for VGAT. (K.O. verified) |
| matching control       | 131-0GP |
| Remarks                | VGAT aggregates after boiling, making it necessary to run SDS-PAGE only with non-boiled samples. |

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 aminoacid 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 isofrom is known. VGAT is currently the best marker for inhibitory nerve terminals.

Selected References SYSY Antibodies

Electron tomography on γ-aminobutyric acid-ergic synapses reveals a discontinuous postsynaptic network of filaments. Linsalata AE, Chen X, Winters CA, Reese TS  


Neuropharmacology (2018) : . WB; tested species: mouse

Molecular neurobiology (2017) 54(8): 6581-6597. IHC

γ-Aminobutyric Acid Type A (GABAA) Receptor Subunits Play a Direct Structural Role in Synaptic Contact Formation via Their N-terminal Extracellular Domains. Brown LE, Nicholson MW, Arama JE, Mercer A, Thomson AM, Jovanovic JN  

GABA is localized in dopaminergic synaptic vesicles in the rodent striatum. Stensrud MJ, Puchades M, Gundersen V  

Isolation of an anorexigenic protein from membranes. Kidwai AM, Upreti RK  

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, Bellochio EE, Danbolt NC, Olsen KK, Edwards RH, Storm-Mathisien J  


Uptake of GABA by rat brain synaptic vesicles isolated by a new procedure. Hell JW, Maycox PR, Stadler H, Jahn R  