

VGAT cytoplasmic domain

Cat.No. 131 002; Polyclonal rabbit antibody, 200 µl antiserum (lyophilized)

Data Sheet

Reconstitution/Storage	200 µl antiserum, lyophilized. For reconstitution add 200 µl H ₂ O, then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 up to 1 : 5000 (AP staining) (see remarks) IP: yes ICC: 1 : 100 up to 1 : 1000 IHC: 1 : 500 up to 1 : 3000 IHC-P/FFPE: yes
Immunogen	Synthetic peptide corresponding to AA 75 to 87 from rat VGAT (UniProt Id: O35458)
Reactivity	Reacts with: human (Q9H598), rat (O35458), mouse (O35633), monkey. Other species not tested yet.
Specificity	Specific for VGAT. (K.O. verified)
matching control	131-0P
Remarks	WB: 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 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.

Selected References SYSY Antibodies

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- Distribution of SNAP25, VAMP1 and VAMP2 in mature and developing deep cerebellar nuclei after estrogen administration. Manca P, Mameli O, Caria MA, Torrejón-Escribano B, Blasi J. *Neuroscience* (2014) 266: 102-15. **WB, IHC**
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- Ablation of the presynaptic organizer Bassoon in excitatory neurons retards dentate gyrus maturation and enhances learning performance. Annamneedi A, Caliskan G, Müller S, Montag D, Budinger E, Angenstein F, Fejtova A, Tischmeyer W, Gundelfinger ED, Stork O. *Brain structure & function* (2018) : . **IHC; tested species: mouse**
- Piperlongumine decreases cognitive impairment and improves hippocampal function in aged mice. Go J, Park TS, Han GH, Park HY, Ryu YK, Kim YH, Hwang JH, Choi DH, Noh JR, Hwang DY, Kim S, et al. *International journal of molecular medicine* (2018) 42(4): 1875-1884. **WB; tested species: mouse**
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- Vti1a/b regulate synaptic vesicle and dense core vesicle secretion via protein sorting at the Golgi. Emperador-Melero J, Huson V, van Weering J, Bollmann C, Fischer von Mollard G, Toonen RF, Verhage M. *Nature communications* (2018) 9(1): 3421. **ICC; tested species: mouse**
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