

VGLUT 1

Cat.No. 135 302; 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 : 10000 (AP staining) (see remarks) IP: yes ICC: 1 : 1000 up to 1 : 10000 IHC: 1 : 500 up to 1 : 1000 IHC-P/FFPE: 1 : 500
Immunogen	Recombinant protein corresponding to AA 456 to 560 from rat VGLUT1 (UniProt Id: Q62634)
Reactivity	Reacts with: human (Q9P2U7), rat (Q62634), mouse (Q3TXX4), cow, goat, dog, sheep, ape. Other species not tested yet.
Specificity	Specific for VGLUT 1. (K.O. verified)
matching control	135-3P
Remarks	WB: VGLUT 1 aggregates after boiling, making it necessary to run SDS-PAGE with non-boiled samples. This antibody is highly recommended as marker for glutamatergic nerve terminals and gives excellent results in ICC.

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

The vesicular glutamate transporter 1 **VGLUT 1**, also referred to as **BNPI** and **SLC17A7**, was originally identified as a brain specific phosphate transporter. Like the related VGLUT 2, VGLUT 1 is both necessary and sufficient for uptake and storage of glutamate and thus comprises the sole determinant for a glutamatergic phenotype. Both VGLUTs are different from the plasma membrane transporters in that they are driven by a proton electrochemical gradient across the vesicle membrane.

VGLUT 1 and VGLUT 2 show complementary expression patterns. Together, they are currently the best markers for glutamatergic nerve terminals and glutamatergic synapses.

Selected References SYSY Antibodies

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- Development of cone photoreceptors and their synapses in the human and monkey fovea. Hendrickson A, Zhang C. *The Journal of comparative neurology* (2019) 527(1): 38-51. **IHC; tested species: human, monkey**
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- A Chemical Recipe for Generation of Clinical-Grade Striatal Neurons from hESCs. Wu M, Zhang D, Bi C, Mi T, Zhu W, Xia L, Teng Z, Hu B, Wu Y. *Stem cell reports* (2018) : . **ICC; tested species: human**
- Cardiolipin exposure on the outer mitochondrial membrane modulates α-synuclein. Ryan T, Bamm VV, Stykel MG, Coackley CL, Humphries KM, Jamieson-Williams R, Ambasadhan R, Mosser DD, Lipton SA, Harauz G, Ryan SD, et al. *Nature communications* (2018) 9(1): 817. **ICC; tested species: human**
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