

VGLUT 1

Cat.No. 135 303; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H ₂ O to get a 1mg/ml solution in PBS. 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 : 500 up to 1 : 10000 IHC: 1 : 1000 IHC-P/FFPE: 1 : 500 EM: yes ELISA: yes (see remarks)
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, sheep, dog. 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. ELISA: Suitable as detector antibody for sandwich-ELISA with cat. no. 135 311 as capture antibody (protocol for sandwich-ELISA). These antibodies are highly recommended as markers for glutamatergic nerve terminals and give 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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Carnosic acid improves outcome after repetitive mild traumatic brain injury. Maynard ME, Underwood EL, Redell JB, Zhao J, Kobori N, Hood KN, Moore AN, Dash PK Journal of neurotrauma (2019) : . **IHC; tested species: mouse**

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