

Synaptophysin 1

Cat.No. 101 011BT; Monoclonal mouse antibody, 50 µg purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg purified IgG, lyophilized, biotin-labeled. . 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 : 10000 (AP staining) IP: yes ICC: 1 : 100 up to 1 : 1000 IHC: 1 : 200 up to 1 : 500 IHC-P/FFPE: 1 : 100 ELISA: (see remarks)
Label	biotin
Clone	7.2
Subtype	IgG1 (λ 1 light chain)
Immunogen	Recombinant protein corresponding to AA 1 to 307 from rat Synaptophysin1 (UniProt Id: P07825)
Epitop	Epitop: AA 219 to 307 from rat Synaptophysin1 (UniProt Id: P07825)
Reactivity	Reacts with: human (P08247), rat (P07825), mouse (Q62277), mammals. Weaker signal: zebrafish, other vertebrates. Other species not tested yet.
Specificity	Specific for synaptophysin 1, no cross-reactivity to other synaptophysins. (K.O. verified)
Remarks	Widely used as marker for nerve terminals and neuroendocrine tumors. For still unknown reason, neuronal synaptophysin is better recognised than neuroendocrine synaptophysin. If this is a problem, the polyclonal rabbit antibody, cat. no. 101 002, is recommended. ELISA: Suitable as capture antibody for sandwich-ELISA with cat. no. 101 002 as detector antibody (protocol for sandwich-ELISA).

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

Synaptophysin 1, also referred to as **p38-1**, is a membrane glycoprotein of synaptic vesicles that is ubiquitously expressed in all neurons and in many endocrine cells. It is currently the most widely used marker for nerve terminals and probably the best marker for the pathologist in differentiating neuroendocrine tumors.

Synaptophysin 1 has four transmembrane domains with both N- and C-terminus facing the cytoplasm. It binds to synaptobrevin 1 and synaptobrevin 2 in detergent extracts but its function has not been elucidated completely. It forms a complex with dynamin at high Ca²⁺