

## AP 180

Cat.No. 155-0P; control peptide, 100 µg peptide (lyophilized)

### Data Sheet

Reconstitution/ Storage	100 µg peptide, lyophilized. For reconstitution add 100 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use. Control peptides should also be stored at -20°C when still lyophilized!
Immunogen	Synthetic peptide corresponding to AA 279 to 297 from rat AP180 (UniProt Id: Q05140)
Recommended dilution	Optimal concentrations should be determined by the end-user.
matching antibodies	155 002, 155 003
Remarks	This control peptide consists of the synthetic peptide that has been used for immunization. It has been tested in preadsorption experiments and blocks efficiently and specifically the corresponding signal in Western blots. The amount of peptide needed for efficient blocking depends on the titer and on the affinity of the antibody to the antigen.

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

During neurotransmitter release synaptic vesicles fuse with the presynaptic plasma membrane. A whole protein machinery consisting of e.g. amphiphysin, clathrin, endophilin and synaptojanin is involved in the subsequent endocytotic recycling of the synaptic vesicles.

**AP 180** also known as **pp155**, **NP185**, **F1-20**, and **SNAP 91** is a clathrin binding phospho-protein and facilitates the formation of clathrin coats.

### Selected General References

- AP180 maintains the distribution of synaptic and vesicle proteins in the nerve terminal and indirectly regulates the efficacy of Ca<sup>2+</sup>-triggered exocytosis.  
 Bao H, Daniels RW, MacLeod GT, Charlton MP, Atwood HL, Zhang B  
 Journal of neurophysiology (2005) 94(3): 1888-903.
- Synaptic distribution of the endocytic accessory proteins AP180 and CALM.  
 Yao PJ, Petralia RS, Bushlin I, Wang Y, Furukawa K  
 The Journal of comparative neurology (2005) 481(1): 58-69.
- High-resolution localization of clathrin assembly protein AP180 in the presynaptic terminals of mammalian neurons.  
 Yao PJ, Coleman PD, Calkins DJ  
 The Journal of comparative neurology (2002) 447(2): 152-62.
- Unusual structural organization of the endocytic proteins AP180 and epsin 1.  
 Kalthoff C, Alves J, Urbanke C, Knorr R, Ungewickell EJ  
 The Journal of biological chemistry (2002) 277(10): 8209-16.
- Changes in synaptic expression of clathrin assembly protein AP180 in Alzheimer's disease analysed by immunohistochemistry.  
 Yao PJ, Morsch R, Callahan LM, Coleman PD  
 Neuroscience (1999) 94(2): 389-94.
- AP180 and AP-2 interact directly in a complex that cooperatively assembles clathrin.  
 Hao W, Luo Z, Zheng L, Prasad K, Lafer EM  
 The Journal of biological chemistry (1999) 274(32): 22785-94.
- Clathrin assembly protein AP180: primary structure, domain organization and identification of a clathrin binding site.  
 Morris SA, Schröder S, Plessmann U, Weber K, Ungewickell E  
 The EMBO journal (1993) 12(2): 667-75.
- Molecular characterization of the AP180 coated vesicle assembly protein.  
 Prasad K, Lippoldt RE  
 Biochemistry (1988) 27(16): 6098-104.