



Product Information Sheet

Polyclonal Anti- Synaptopodin

Catalogue No. PA1384

Lot No. 0131112028427

Ig type rabbit IgG

Size 100µg/vial

Specificity

Human, rat.

No cross reactivity with other proteins.

Recommended application

Western blot

Immunohistochemistry(P)

Immunogen

A synthetic peptide corresponding to a sequence at the middle region of human synaptopodin (495-509 aa), identical to the related mouse and rat sequence.

Purity

Immunogen affinity purified.

Application

	Concentration	Tested Species	Concluded Species	Antigen Retrieval
WB	1µg/ml	Rat	-	-
IHC-P	1µg/ml	Hu, Rat	Ms	By Heat
IHC-F	-	-	-	-
ICC	-	-	-	-

Other applications have not been tested.

Optimal dilutions should be determined by end user.

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Reconstitution

0.2ml of distilled water will yield a concentration of 500µg/ml.

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for longer time.

To reorder contact us at:

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BACKGROUND

The spine apparatus (SA) is a specialized form of endoplasmic reticulum (ER) that is found in a subpopulation of dendritic spines in central neurons. The SA consists of a series of stacked discs that are thought to be connected to each other and to the dendritic system of ER-tubules. The actin binding protein synaptopodin (which has originally been described in podocytes of the kidney) is an essential component of the SA. Mice that lack the gene for synaptopodin do not form a spine apparatus. The SA is believed to play a critical role in learning and memory. In summary, an important function of the spine apparatus is the regulation of plasticity at individual synapses, a process known as metaplasticity. The International Radiation Hybrid Mapping Consortium mapped the SYNPO gene to chromosome 5.

REFERENCE

- 1.Gray (1959). "Electron microscopy of synaptic contacts on dendrite spines of the cerebral cortex". *Nature* 183 (4675): 1592–3.
- 2.Cooney; Hurlburt, JL; Selig, DK; Harris, KM; Fiala, JC (2002). "Endosomal compartments serve multiple hippocampal dendritic spines from a widespread rather than a local store of recycling membrane". *The Journal of neuroscience : the official journal of the Society for Neuroscience* 22 (6): 2215–24.
- 3.Deller; Merten, T; Roth, SU; Mundel, P; Frotscher, M (2000). "Actin-associated protein synaptopodin in the rat hippocampal formation: localization in the spine neck and close association with the spine apparatus of principal neurons". *The Journal of Comparative Neurology* 418 (2): 164–81