

Product Information

Anti-phospho-Synaptotagmin [pThr²⁰²]
produced in rabbit, affinity isolated antibody

Catalog Number **S3946**

Product Description

Anti-phospho-Synaptotagmin [pThr²⁰²] is produced in rabbit using a synthetic phosphopeptide corresponding to amino acid residues surrounding the threonine 202 of synaptotagmin as immunogen. The sequence of the immunogen is identical in synaptotagmins I, II and III in human, mouse and rat. The antiserum is affinity purified using sequential chromatography on phospho- and non-phosphopeptide affinity columns.

Anti-phospho-Synaptotagmin [pThr²⁰²] specifically recognizes human, mouse, and rat forms of synaptotagmin phosphorylated at threonine 202, 60-62 kDa. The antibody has been used in immunoblotting.

Synaptotagmin is widely regarded as the primary calcium sensor for synaptic vesicle exocytosis. Recent studies indicate that the protein also plays a key role in endocytosis. Synaptotagmin can be phosphorylated by multiple protein kinases and this may play a key role in modulation of synaptotagmin ability to influence both the exocytotic and endocytotic components of synaptic transmission.

Reagent

Supplied as a solution in 10 mM HEPES, pH 7.5, 150 mM NaCl with 100 µg/mL BSA and 50% glycerol.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

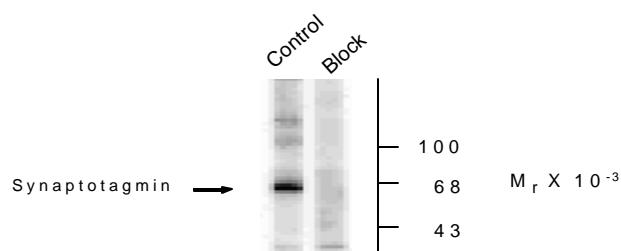
Store at -20 °C. Upon initial thawing, freeze the solution in working aliquots for extended storage. Avoid repeated freezing and thawing, or storage in frost-free freezers, to prevent denaturing the antibody. Discard working dilution samples if not used within 12 hours. The antibody is stable for at least 12 months when stored appropriately.

Product Profile

The supplied reagent is sufficient for 10 blots. A recommended working dilution 1:1000 is determined by immunoblotting using rat brain lysate.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

Anti-Phospho-Thr²⁰² Synaptotagmin



Immunoblot: 10 µg of rat brain lysate shows specific immunolabeling of synaptotagmin phosphorylated at threonine 202. The antibody was specifically blocked by the phosphopeptide used as antigen. The corresponding non-phosphopeptide did not block the immunolabeling (not shown).

References

1. Poskanzer, K.E., et al., Synaptotagmin I is necessary for compensatory synaptic vesicle endocytosis *in vivo*, *Nature* (London), **426**, 559 – 563 (2003).
2. Wang, C.T. et al., Different domains of synaptotagmin control the choice between kiss-and-run and full fusion. *Nature* (London), **424**, 943-947 (2003).
3. Fernandez-Chacon, R., et al., Synaptotagmin I functions as a calcium regulator of release probability, *Nature* (London), **410**, (2001) 41 - 49.
4. Hilfiker, S et al., Regulation of synaptotagmin I phosphorylation by multiple protein kinases, *J.Neurochem.* **73**, 921 – 932 (1999).

AH,PHC 12/05-1

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