

Product Information

ANTI-Rab 3C

Developed in Rabbit
Affinity Isolated Antibody

Product Number **R 2901**

Product Description

Anti-Rab 3C was developed in rabbit using a synthetic peptide corresponding to amino acids 9-26 (MASAQDARFGQKDSSDQN) of the rat rab 3C protein, with an additional C-terminal cysteine, conjugated to KLH as the immunogen. This sequence is 94% conserved in the bovine and 78% conserved in the mouse and human Rab 3C protein.

Anti-Rab 3C recognizes Rab 3C (22 kDa) in immunoblots of rat brain and total cell protein extracts of the mouse cell line AtT20.

The directional transport of cargo between organelles along the secretory pathway occurs as vesicles from donor compartments fuse with the membrane of specific acceptor compartments. The Rab/Ypt family of proteins mediates this process.¹ Rab proteins are low molecular weight GTP-binding proteins that form the largest branch of the Ras superfamily of GTPases. It has been shown that rab proteins, located on the cytoplasmic face of organelles and vesicles, are involved in intracellular membrane fusion reactions.²

Three ubiquitous membrane proteins, SNAP-25, synaptobrevin and syntaxin form the core of membrane fusion machinery that interacts with the soluble proteins NSF and α -SNAP. Rab proteins, in conjunction with the core fusion machinery and munc-18, help to mediate vesicle docking and fusion. Over 40 rab proteins have been described in mammals.³ Rab 3C was identified in rat and human pancreatic islets.⁴ Subsequent research suggests that rab3C may play a role in matrix vesicle trafficking during skeletal development.⁵

Reagent

Anti-Rab 3C is supplied as 100 μ g of affinity isolated antibody in phosphate buffered saline containing 1.0 mg/ml bovine serum albumin and 0.05 % sodium azide as preservative.

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling.

Storage/Stability

Store at -20°C . For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

The recommended working concentration is 2 μ g/ml for immunoblotting.

Note: In order to obtain best results and assay sensitivities of different techniques and preparations, we recommend determining optimal working dilutions by titration test.

References

1. Novick, P., and Zerial, M., *Curr. Opin. Cell Biol.*, **9**, 496-504 (1997).
2. Geppert, M., and Sudhof, T. C., *Annu. Rev. Neurosci.*, **21**, 75-95 (1998).
3. Novick, P., and Zerial, M., *Curr. Opin. Cell Biol.*, **9**, 496-504 (1997).
4. Regazzi, R., et al., *J. Cell Sci.*, **109**, 2265-73 (1996).
5. Pavlos, N. J., et al., *J. Mol. Endocrinol.*, **27**, 117-122 (2001).

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