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ProductInformation

Monoclonal Anti-Rem (Ges), Clone 24E4
Purified Mouse Immunoglobulin

Product Number **R 7527**

Product Description

Monoclonal Anti-Rem (Ges) (mouse IgG1 isotype) is derived from the 24E4 hybridoma produced using recombinant mouse Rem as immunogen. The antibody is purified from ascites fluid using standard chromatographic techniques.

Monoclonal Anti-Rem (Ges) reacts specifically with Rem (Ges) from human and mouse. Other species have not been tested. The antibody may be used in immunoblotting (37 kDa) and immunoprecipitation. Other applications have not been tested.

Rem (Rad and Gem related GTP binding protein) is a member of the Rad/Gem/Kir subfamily of Ras-like GTPases and shares with other members of this subfamily some unusual structural features. Among these are nonconservative amino acid substitutions within guanine nucleotide binding and hydrolysis domains, unique effector domains, extended N- and C-termini, and a conserved C-terminal sequence thought to mediate membrane association but lacking a classical isoprenylation motif. Rem, with a predicted molecular weight of 32.9 kDa, is most highly expressed in cardiac muscle and is expressed at more moderate levels in lung, kidney and skeletal muscle. Rem is phosphorylated *in vivo* and has been shown to interact with several 14-3-3 isoforms.

It has been reported that the GTP-bound form of a related Ras-like GTPase, Gem/kir, inhibits high-voltage-activated Ca^{2+}channel activities by interacting directly with the β subunit. The reduced channel activities are the result of a decreased α_1-subunit expression at the plasma membrane. This inhibition of L-type Ca^{2+}channels prevents Ca^{2+}-triggered exocytosis in hormone-secreting cells. There are data that suggest that Rem similarly regulates Ca^{2+} channel expression

Reagents

Monoclonal Anti-Rem (Ges) is supplied as a solution in 20 mM sodium phosphate, 150 mM sodium chloride, 50% glycerol, pH 7.5, containing 3 mM sodium azide.

Antibody Concentration: Approx. 1 mg/ml.

Precautions and Disclaimer

Due to the sodium azide content a material safety 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 practices.

Storage/Stability

Store at –20 °C. 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

A working concentration of 1 µg/ml is determined by immunoblotting using a whole extract of C2C12 cells, a mouse muscle myoblast cell line.

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

References

1. Finlin, B. S., and Andres, D. A., Rem is a new member of the Rad- and Gem/Kir Ras-related GTP-binding protein family repressed by lipopolysaccharide stimulation, J. Biol. Chem., **272**, 21982-21988 (1997).

2. Finlin, B. S., and Andres, D. A., Phosphorylation-dependent association of the Ras-related GTP-binding protein Rem with 14-3-3 proteins, Arch. Biochem. Biophys., **368**, 401-412 (1999).

3. Pan, J. Y., et al., Ges, A human GTPase of the Rad/Gem/Kir family, promotes endothelial cell sprouting and cytoskeleton reorganization. J. Cell Biol., **149**, 1107-1115 (2000).

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