

Product Information

**Monoclonal Anti-phospho-RasGRP1(pThr¹⁸⁴)
clone p-RasGRP1-1**
produced in mouse, purified immunoglobulin

Catalog Number **SAB4200337**

Product Description

Monoclonal Anti-phospho-RasGRP1(pThr¹⁸⁴) (mouse IgG2a isotype) is derived from the hybridoma p-RasGRP1-1 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic phospho-peptide corresponding to residues surrounding Thr¹⁸⁴ of human RasGRP1 (GeneID: 10125), conjugated to KLH. The corresponding sequence is identical in rat, mouse, monkey, bovine and canine RasGRP1. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-phospho-RasGRP1 (pThr¹⁸⁴) recognizes human RasGRP1 phosphorylated at Thr¹⁸⁴. The antibody may be used in several immunochemical techniques including immunoblotting (~90 kDa) and immunoprecipitation. Detection of the phospho-RasGRP1 (pThr¹⁸⁴) band by immunoblotting is specifically inhibited with the phosphorylated immunizing peptide and not with the corresponding non-phosphorylated peptide. Weak non-specific bands of lower MW may appear in some extract preparations.

RasGRP1 (RAS guanyl releasing protein 1 (calcium and DAG-regulated)) is a member of a family of proteins characterized by the presence of a Ras superfamily guanine nucleotide exchange factor (GEF) domain. It functions as a diacylglycerol (DAG)-regulated nucleotide exchange factor specifically activating Ras through the exchange of bound GDP for GTP. It activates the Erk/MAP kinase cascade and regulates T-cells and B-cells development, homeostasis and differentiation. Alternatively spliced transcript variants encoding different isoforms have been identified. Altered expression of the different isoforms may be a cause of susceptibility to systemic lupus erythematosus (SLE).¹⁻⁵

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.
Antibody Concentration: ~ 1.0 mg/mL

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

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze at -20 °C in working aliquots. Repeated freezing and thawing, or 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

Immunoblotting: a working concentration of 2-4 µg/mL is recommended using whole extracts of HEK-293T cells overexpressing human RasGRP1.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration. Exposure to sensitive film is recommended.

References

1. Brose, N., et al., *Curr. Opin. Neurobiol.*, **14**, 328-340 (2004).
2. Mor, A., and Philips, M.R., *Annu. Rev. Immunol.*, **24**, 771-800 (2006).
3. Zheng, Y., et al., *EMBO Rep.*, **9**, 50-55 (2008).
4. Kremer, K.N., et al., *J. Immunol.*, **187**, 3177-3185 (2011).
5. Yasuda, S., et al., *J. Immunol.*, **179**, 4890-4900 (2007).

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