

Product Information

Anti-GRK2 antibody, Mouse monoclonal
clone 3A10, purified from hybridoma cell culture

Catalog Number **G7670**

Product Description

Monoclonal Anti-GRK2/ β ARK1 (mouse IgG2b isotype) is derived from the hybridoma 3A10 produced by the fusion of mouse myeloma cells (SP2/0-Ag14 cells) and splenocytes from BALB/c mice immunized with recombinant bovine GRK2/ β ARK. ¹ The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2.

Monoclonal Anti-GRK2/ β ARK1 recognizes human, ¹⁻³ rat, and bovine ² GRK2/ β ARK1, ~65 kDa. The antibody epitope resides within a highly conserved region of GRK2, residues 500–531. ¹ The product is useful in immunoblotting ¹ and immunoprecipitation. This antibody does not recognize other GRKs. ¹

G protein-coupled receptor kinases (GRKs) are important regulators of G protein-coupled receptors (GPCRs). GRK2, one of six members of this family that have been identified to date, is ubiquitously expressed in mammals. After binding to their ligand and interacting with heterotrimeric G proteins, GPCRs (e.g. β_2 adrenergic receptor) are phosphorylated by GRKs. Internalization of the GPCRs regulated by β -arrestin-1 leads to activation of the Ras/Raf/ERK1&2 signaling pathway. GRK2 activity is tightly controlled by different mechanisms including phosphorylation by kinases such as PKC, Src, and ERK1&2, as well as by interaction with various proteins. ERK phosphorylates and thus inactivates GRK2 on Ser⁶⁷⁰ in a negative feedback mechanism. ⁴⁻⁶

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~2 mg/ml

Precautions and Disclaimer

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

Storage/Stability

For continuous use, store at $-20\text{ }^{\circ}\text{C}$. For extended storage, freeze 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 $\mu\text{g/ml}$ is determined using total cell extract of Rat osteosarcoma (ROS).

Note: In order to obtain best results in different techniques and preparations, it is recommended to determine optimal working concentration by titration test.

References

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3. Tiruppathi, C. et al., *Proc. Natl. Acad. Sci. USA*, **97**, 7440-7445 (2000).
4. Day, P.W. et al., *Meth. Enz.*, **390**, 295-310 (2004).
5. Penela, P. et al., *Cell Signal.*, **15**, 973-81 (2003).
6. Aragay, A.M. et al., *FEBS Lett.*, **430**, 37-40 (1998).

EK,KAA,PHC,MAM 01/18-1