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Store at -20C
#5878

GRK6 (D1A4) Rabbit mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 70	Source/Isotype: Rabbit IgG	UniProt ID: #P43250	Entrez-Gene Id: 2870
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

GRK6 (D1A4) Rabbit mAb recognizes endogenous levels of total GRK6 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu89 of human GRK6 protein.

Background

G protein-coupled **R**eceptor **K**inase **6** (GRK6) is one of 7 members of the GRK serine/threonine kinase subfamily, which are known primarily for their role in desensitizing activated G protein-coupled receptors (GPCRs) (1,2). GRKs function by phosphorylating serine/threonine residues in activated GPCRs. Upon phosphorylation these residues serve as binding sites for β-arrestin proteins, inhibiting re-activation of GPCRs by blocking their re-association with G proteins (3). There is evidence that GRKs can also modulate selected non-GPCR signaling pathways (2). For example, GRK6 has been shown to modulate the Wnt signaling pathway via phosphorylation of LRP6 (4), and the insulin-like growth factor signaling pathway (5). GRK6 may also play a role in immune system function. Investigators have found GRK6 expression is typically abundant in hematopoietic tumor cell lines, and a recent research study demonstrated that GRK6 suppression was selectively lethal for a number of myeloma tumor cell lines (6).

Background References

- Mushagian, A. et al. (2012) *PLoS One* 7, e33806.
- Gurevich, E.V. et al. (2012) *Pharmacol Ther* 133, 40-69.
- Ribas, C. et al. (2007) *Biochim Biophys Acta* 1768, 913-22.
- Chen, M. et al. (2009) *J Biol Chem* 284, 35040-8.
- Zheng, H. et al. (2012) *Proc Natl Acad Sci U S A* 109, 7055-60.
- Tiedemann, R.E. et al. (2010) *Blood* 115, 1594-604.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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