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- Gefahrgutzuschlag
- Expressversand

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# GRK 6 (h): 293T Lysate: sc-158578

## BACKGROUND

Heterotrimeric G protein-mediated signal transduction is a dynamically regulated process with the intensity of signal decreasing over time despite the continued presence of the agonist. This phenomenon, referred to as agonist-mediated desensitization, involves phosphorylation of the receptor by two classes of enzymes. The first class is comprised of the second messenger-regulated kinases, such as cAMP dependent protein kinase A and protein kinase C. The second class includes the G protein-coupled receptor kinases (GRKs). At least seven members of the GRK family have been identified. These include rhodopsin kinase (GRK 1), two forms of  $\beta$ -adrenergic receptor kinase: GRK 2 ( $\beta$ ARK,  $\beta$ ARK1) and GRK 3 ( $\beta$ ARK2), IT-11 (GRK 4), GRK 5, GRK 6 and GRK 7. Phosphorylation of receptors by GRKs appears to be strictly dependent on the receptor being in its agonist-activated state.

## REFERENCES

- Hausdorff, W.P., et al. 1990. Turning off the signal: desensitization of  $\beta$ -adrenergic receptor function. *FASEB J.* 4: 2881-2889.
- Lorenz, W., et al. 1991. The receptor kinase family: primary structure of rhodopsin kinase reveals similarities to the  $\beta$ -adrenergic receptor kinase. *Proc. Natl. Acad. Sci. USA* 88: 8715-8719.
- Benovic, J.L., et al. 1991. Cloning, expression, and chromosomal localization of  $\beta$ -adrenergic receptor kinase 2. *J. Biol. Chem.* 266: 14939-14946.
- Inglese, J., et al. 1993. Structure and mechanism of the G protein-coupled receptor kinases. *J. Biol. Chem.* 268: 23735-23738.
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- Pei, G., et al. 1994. An approach to the study of G-protein-coupled receptor kinases: an *in vitro*-purified membrane assay reveals differential receptor specificity and regulation by G  $\beta$   $\gamma$  subunits. *Proc. Natl. Acad. Sci. USA* 91: 3633-3636.
- Premont, R.T., et al. 1994. Identification, purification, and characterization of GRK5, a member of the family of G protein-coupled receptor kinases. *J. Biol. Chem.* 269: 6832-6841.
- Inglese, J., et al. 1994. Functionally active targeting domain of the  $\beta$ -adrenergic receptor kinase: an inhibitor of G  $\beta$   $\gamma$ -mediated stimulation of type II adenylyl cyclase. *Proc. Natl. Acad. Sci. USA* 91: 3637-3641.

## CHROMOSOMAL LOCATION

Genetic locus: GRK6 (human) mapping to 5q35.3.

## PRODUCT

GRK 6 (h): 293T Lysate represents a lysate of human GRK 6 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## APPLICATIONS

GRK 6 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive GRK 6 antibodies. Recommended use: 10-20  $\mu$ l per lane.

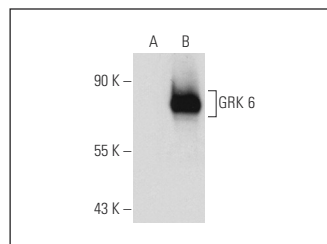
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

GRK 6 (XX-4): sc-100380 is recommended as a positive control antibody for Western Blot analysis of enhanced human GRK 6 expression in GRK 6 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

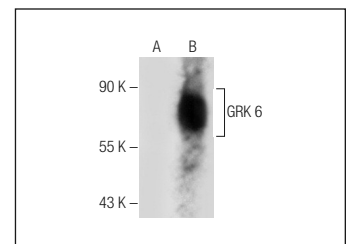
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



GRK 6 (XX-4): sc-100380. Western blot analysis of GRK 6 expression in non-transfected: sc-117752 (A) and human GRK 6 transfected: sc-158578 (B) 293T whole cell lysates.



GRK 6 (D-10): sc-377494. Western blot analysis of GRK 6 expression in non-transfected: sc-117752 (A) and human GRK 6 transfected: sc-158578 (B) 293T whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.