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# Produktinformation

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- Diagnostik & molekulare Diagnostik
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See the following pages for more information!

## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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SANTA CRUZ BIOTECHNOLOGY, INC.

# RGS3 (m): 293T Lysate: sc-125903

## BACKGROUND

Heterotrimeric G proteins function to relay information from cell surface receptors to various intracellular effectors. G proteins comprise $\alpha$, $\beta$ and $\gamma$ subunits, and following activation, the $\alpha$ subunit binds GTP and dissociates from the $\beta\gamma$ complex. A large group of proteins have been identified as GTPase-activating proteins (GAPs), including the RGS (regulator of G protein signaling) family, which serve to deactivate specific $G_{\alpha}$ isoforms by increasing the rate at which they convert GTP to GDP. RGS3 is a protein of the RGS family that preferentially binds to the activated form of $G_{\alpha\,11}$. Through this association, RGS3 inhibits $G_{\alpha\,11}$-induced signaling, leading to a decrease in the accumulation of intracellular calcium and the inhibition of MAP kinase phosphorylation. RGS3 is highly expressed in adult kidney and myocardium, and it is primarily localized to the cytoplasm. Upon activation of $G_{\alpha\,11}$, RGS3 translocates from the cytosol to the plasma membrane, thereby bringing RGS3 within close proximity to the targeted G protein.

## REFERENCES


1. Conklin, B.R. and Bourne, H.R. 1993. Structural elements of G $\alpha$ subunits that interact with $G_{\beta\,\gamma}$, receptors, and effectors. Cell 73: 631-641.
2. Guan, K.L. and Han, M. 1999. A G-protein signaling network mediated by an RGS protein. Genes Dev. 13: 1763-1767.
3. Chatterjee, T.K., Eapen, A., Kanis, A.B. and Fisher, R.A. 1997. Genomic organization, 5'-flanking region, and chromosomal localization of the human RGS3 gene. Genomics 45: 429-433.
4. Chatterjee, T.K., Eapen, A.K. and Fisher, R.A. 1997. A truncated form of RGS3 negatively regulates G protein-coupled receptor stimulation of adenylyl cyclase and phosphoinositide phospholipase C. J. Biol. Chem. 272: 15481-15487.
5. Druey, K.M., Blumer, K.J., Kang, V.H. and Kehrl, J.H. 1996. Inhibition of G-protein-mediated MAP kinase activation by a new mammalian gene family. Nature 379: 742-746.


## CHROMOSOMAL LOCATION

Genetic locus: Rgs3 (mouse) mapping to 4 B3.

## PRODUCT

RGS3 (m): 293T Lysate represents a lysate of mouse RGS3 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

RGS3 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive RGS3 antibodies. Recommended use: 10-20 µl per lane.

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

## 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.