



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# GMF- $\gamma$ siRNA (m): sc-155900

## BACKGROUND

GMF- $\gamma$  (glia maturation factor,  $\gamma$ ), also known as GMFG, is a 142 amino acid protein that belongs to the GMF subfamily of the larger Actin-binding protein ADF family. GMF- $\gamma$  is expressed predominantly in lung, heart and placenta. GMF- $\gamma$  is considered a candidate regulatory growth factor protein, mediating both paracrine and autocrine cell-cell interactions. GMF- $\gamma$  is phosphorylated at N-terminal serine, and its phosphorylation is enhanced by coexpression of dominant active Rac 1 and Cdc42. GMF- $\gamma$  expression is significantly increased in a cardiac ischemia/reperfusion model where inflammation and angiogenesis take place actively. As a regulator of Actin-based cellular functions, GMF- $\gamma$  may provide a novel approach to modulate the pathophysiology of cardiovascular diseases. GMF- $\gamma$  is primarily found in proliferative and differentiative organs.

## REFERENCES

1. Tsuiji, H., et al. 2000. Cloning of a rat glia maturation factor  $\gamma$  (rGMFG) cDNA and expression of its mRNA and protein in rat organs. *J. Biochem.* 127: 517-523.
2. Nishiwaki, A., et al. 2001. Expression of glia maturation factor during retinal development in the rat. *Brain Res. Mol. Brain Res.* 95: 103-109.
3. Asai, K. 2001. Review of the research of glia maturation factor and cloning of human and rat glia maturation factor  $\gamma$  (GMFG) cDNA. *Nihon Shinkei Seishin Yakurigaku Zasshi* 21: 15-20.
4. Inagaki, M., et al. 2004. Sensitive immunoassays for human and rat GMFB and GMFG, tissue distribution and age-related changes. *Biochim. Biophys. Acta* 1670: 208-216.
5. Hotta, N., et al. 2005. Expression of glia maturation factor  $\beta$  after cryogenic brain injury. *Brain Res. Mol. Brain Res.* 133: 71-77.
6. Ikeda, K., et al. 2006. Glia maturation factor  $\gamma$  is preferentially expressed in microvascular endothelial and inflammatory cells and modulates Actin cytoskeleton reorganization. *Circ. Res.* 99: 424-433.
7. Shi, Y., et al. 2006. Glia maturation factor  $\gamma$  (GMFG): a cytokine-responsive protein during hematopoietic lineage development and its functional genomics analysis. *Genomics Proteomics Bioinformatics* 4: 145-155.
8. Skinner, M.K., et al. 2008. Regulation of granulosa and theca cell transcriptomes during ovarian antral follicle development. *Mol. Reprod. Dev.* 75: 1457-1472.

## CHROMOSOMAL LOCATION

Genetic locus: Gmfg (mouse) mapping to 7 A3.

## PRODUCT

GMF- $\gamma$  siRNA (m) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see GMF- $\gamma$  shRNA Plasmid (m): sc-155900-SH and GMF- $\gamma$  shRNA (m) Lentiviral Particles: sc-155900-V as alternate gene silencing products.

## STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

GMF- $\gamma$  siRNA (m) is recommended for the inhibition of GMF- $\gamma$  expression in mouse cells.

## SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10  $\mu$ M in 66  $\mu$ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor GMF- $\gamma$  gene expression knockdown using RT-PCR Primer: GMF- $\gamma$  (m)-PR: sc-155900-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## 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.