



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

www.szabo-scandic.com

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

group XIIB sPLA₂ siRNA (m): sc-145779

BACKGROUND

Secreted phospholipases A₂ (sPLA₂s) form a large family of structurally related enzymes, which are widespread in nature. Snake venoms have been known for decades to contain a tremendous molecular diversity of sPLA₂s, which can exert a myriad of toxic and pharmacological effects. Secreted phospholipase A₂ enzymes liberate arachidonic acid from phospholipids for production of eicosanoids and exert a variety of physiologic and pathologic effects. Group XII sPLA₂s, such as group XIIB sPLA₂, have relatively low specific activity and are structurally and functionally distinct from other sPLA₂s. Group XIIB sPLA₂, also known as GXIIB, FKSG71 or PLA2G13, is a 195 amino acid secreted protein strongly expressed in liver, small intestine and kidney. Group XIIB sPLA₂ is encoded by a gene located human chromosome 10q22.1.

REFERENCES

1. Lambeau, G. and Lazdunski, M. 1999. Receptors for a growing family of secreted phospholipases A₂. *Trends Pharmacol. Sci.* 20: 162-170.
2. Valentin, E. and Lambeau, G. 2000. Increasing molecular diversity of secreted phospholipases A₂ and their receptors and binding proteins. *Biochim. Biophys. Acta* 1488: 59-70.
3. Hanasaki, K. and Arita, H. 2002. Phospholipase A₂ receptor: a regulator of biological functions of secretory phospholipase A₂. *Prostaglandins Other Lipid Mediat.* 68-69: 71-82.
4. Hanasaki, K. 2004. Mammalian phospholipase A₂: phospholipase A₂ receptor. *Biol. Pharm. Bull.* 27: 1165-1167.
5. Huhtinen, H.T., Grönroos, J.O., Grönroos, J.M., Uksila, J., Gelb, M.H., Nevalainen, T.J. and Laine, V.J. 2006. Antibacterial effects of human group IIA and group XIA phospholipase A₂ against *Helicobacter pylori* *in vitro*. *APMIS* 114: 127-130.
6. Ni, Z., Okeley, N.M., Smart, B.P. and Gelb, M.H. 2006. Intracellular actions of group IIA secreted phospholipase A₂ and group IVA cytosolic phospholipase A₂ contribute to arachidonic acid release and prostaglandin production in rat gastric mucosal cells and transfected human embryonic kidney cells. *J. Biol. Chem.* 281: 16245-16255.
7. Hallstrand, T.S., Chi, E.Y., Singer, A.G., Gelb, M.H. and Henderson, W.R. 2007. Secreted phospholipase A₂ group X overexpression in asthma and bronchial hyperresponsiveness. *Am. J. Respir. Crit. Care Med.* 176: 1072-1078.
8. Rouault, M., Le Calvez, C., Boilard, E., Surrel, F., Singer, A., Ghomashchi, F., Bezzine, S., Scarzello, S., Bollinger, J., Gelb, M.H. and Lambeau, G. 2007. Recombinant production and properties of binding of the full set of mouse secreted phospholipases A₂ to the mouse M-type receptor. *Biochemistry* 46: 1647-1662.
9. Mounier, C.M., Wendum, D., Greenspan, E., Flejou, J.F., Rosenberg, D.W. and Lambeau, G. 2008. Distinct expression pattern of the full set of secreted phospholipases A₂ in human colorectal adenocarcinomas: sPLA₂-III as a biomarker candidate. *Br. J. Cancer* 98: 587-595.

CHROMOSOMAL LOCATION

Genetic locus: Pla2g12b (mouse) mapping to 10 B4.

PRODUCT

group XIIB sPLA₂ siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see group XIIB sPLA₂ shRNA Plasmid (m): sc-145779-SH and group XIIB sPLA₂ shRNA (m) Lentiviral Particles: sc-145779-V as alternate gene silencing products.

For independent verification of group XIIB sPLA₂ (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-145779A, sc-145779B and sc-145779C.

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 µl of the RNase-free water provided. Resuspension of the siRNA duplex in 330 µl of RNase-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

group XIIB sPLA₂ siRNA (m) is recommended for the inhibition of group XIIB sPLA₂ 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 µM in 66 µl. 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 group XIIB sPLA₂ gene expression knockdown using RT-PCR Primer: group XIIB sPLA₂ (m)-PR: sc-145779-PR (20 µl). 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 for detailed protocols and support products.