

# group XIIB sPLA<sub>2</sub> siRNA (h): sc-90439

## BACKGROUND

Secreted phospholipases A<sub>2</sub> (sPLA<sub>2</sub>s) 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 sPLA<sub>2</sub>s, which can exert a myriad of toxic and pharmacological effects. Secreted phospholipase A<sub>2</sub> enzymes liberate arachidonic acid from phospholipids for production of eicosanoids and exert a variety of physiologic and pathologic effects. Group XII sPLA<sub>2</sub>s, such as group XIIB sPLA<sub>2</sub>, have relatively low specific activity and are structurally and functionally distinct from other sPLA<sub>2</sub>s. Group XIIB sPLA<sub>2</sub>, also known as GXIIB, FKSG71 or PLA2G13, is a 195 amino acid secreted protein strongly expressed in liver, small intestine and kidney. Group XIIB sPLA<sub>2</sub> is encoded by a gene located human chromosome 10q22.1.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: PLA2G12B (human) mapping to 10q22.1.

## PROTOCOLS

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

## PRODUCT

group XIIB sPLA<sub>2</sub> siRNA (h) 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 sPLA<sub>2</sub> shRNA Plasmid (h): sc-90439-SH and group XIIB sPLA<sub>2</sub> shRNA (h) Lentiviral Particles: sc-90439-V as alternate gene silencing products.

For independent verification of group XIIB sPLA<sub>2</sub> (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-90439A, sc-90439B and sc-90439C.

## 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 sPLA<sub>2</sub> siRNA (h) is recommended for the inhibition of group XIIB sPLA<sub>2</sub> expression in human 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 sPLA<sub>2</sub> gene expression knockdown using RT-PCR Primer: group XIIB sPLA<sub>2</sub> (h)-PR: sc-90439-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.