

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

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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 μ M 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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M 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 μ M in 66 μ 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 group XIIB sPLA₂ gene expression knockdown using RT-PCR Primer: group XIIB sPLA₂ (m)-PR: sc-145779-PR (20 μ 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 for detailed protocols and support products.