PROC siRNA – Vitamin K-Dependent Protein C Isoform 2 Preproprotein (Mouse)

PRODUCT OVERVIEW

Product Name	PROC, siRNA
Full Product Name	PROC siRNA (Mouse)
Product Gene Name	PROC sirna
Product Synonym Names	Vitamin K-dependent protein C; Anticoagulant protein C; Autoprothrombin IIA; Blood coagulation factor XIV
Host	Synthetic
Species Reactivity	Mouse
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	PROC siRNA (Mouse) is a target-specific 19-23 nt siRNA oligo duplexes designed to knock down gene expression.
Preparation and Storage	Shipped at 4 degree C. Store at -20 degree C for one year.
Molecular Weight	51,818 Da
3D Structure	ModBase 3D Structure for P33587
Negative Control	siRNA Negative Control (Catalog# MBS8241404) is a non-targeting 21 nt siRNA recommended as a negative control for experiments using targeted siRNA transfection.
Quality Control	Oligonucleotide synthesis is monitored base by base through trityl analysis to ensure appropriate coupling efficiency. The oligo is subsequently purified by affinity-solid phase extraction. The annealed RNA duplex is further analyzed by mass spectrometry to verify the exact composition of the duplex. Each lot is compared to the previous lot by mass spectrometry to ensure maximum lot-to-lot consistency.
Directions for Use	We recommends transfection with 100 nM siRNA 48 to 72 hours prior to cell lysis. Before resuspending, briefly centrifuge the tube to ensure the lyophilized siRNA is at the bottom of the tube. Resuspend the siRNA oligos to an appropriate concentration with DEPC water. For each vial, suitable for 250 transfections in 24 well plate (20 pmol for each well).
Components	We offer pre-designed sets of 3 different target-specific siRNA oligo duplexes of mouse PROC gene. Each vial contains 5 nmol of lyophilized siRNA. The duplexes can be transfected individually or pooled together to achieve knockdown of the target gene, which is most commonly assessed by qPCR or western blot. Our siRNA oligos are also chemically modified (2'-OMe) at no extra charge for increased stability and enhanced knockdown in vitro and in vivo.
Applications Tested/Suitable for PROC sirna	RNA Interference (RNAi)
Related Product Information for PROC sirna	MBS8218452 is an siRNA targeting PROC. Also known as PROC siRNA (Mouse). Reactive in Mouse. Host: Synthetic. siRNA to inhibit PROC expression using RNA interference
Other Notes	Small volumes of PROC sirna vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PROC. It may not necessarily be applicable to this product.

NCBI GI #	112421031

NCBI GeneID	19123
NCBI Accession #	NP_001036232.1
UniProt Primary Accession #	P33587
UniProt Secondary Accession #	O35498; Q91WN8; Q99PC6
UniProt Related Accession #	P33587
GenBank Nucleotide #	NM_001042767.2
NCBI Official Full Name	vitamin K-dependent protein C isoform 2 preproprotein
NCBI Official Synonym Full Names	protein C
NCBI Official Symbol	Proc
NCBI Official Synonym Symbols	PC
UniProt Protein Name	Vitamin K-dependent protein C
UniProt Synonym Protein Names	Anticoagulant protein C; Autoprothrombin IIA; Blood coagulation factor XIV
Protein Family	Vitamin K-dependent protein
UniProt Gene Name	Proc
UniProt Entry Name	PROC_MOUSE
NCBI Protein Information	vitamin K-dependent protein C
NCBI Summary for PROC	This gene encodes the vitamin K-dependent protein C, which plays a vital role in the anticoagulation pathway. The encoded protein undergoes proteolytic processing including activation by thrombin-thrombomodulin complex to form the anticoagulant serine protease that degrades activated coagulation factors. A complete lack of the encoded protein in mice results in severe perinatal consumptive coagulopathy in the brain and liver, resulting in death within 24 hours after birth. Alternative splicing results in multiple transcript variants encoding different isoforms that may undergo similar processing to generate the mature protein. [provided by RefSeq, Sep 2015]
UniProt Comments for PROC	PROC: Protein C is a vitamin K-dependent serine protease that regulates blood coagulation by inactivating factors Va and VIIIa in the presence of calcium ions and phospholipids. Defects in PROC are the cause of thrombophilia due to protein C deficiency, autosomal dominant (THPH3). A hemostatic disorder characterized by impaired regulation of blood coagulation and a tendency to recurrent venous thrombosis. However, many adults with heterozygous disease may be asymptomatic. Individuals with decreased amounts of protein C are classically referred to as having type I protein C deficiency and those with normal amounts of a functionally defective protein as having type II deficiency. Defects in PROC are the cause of thrombophilia due to protein C deficiency, autosomal recessive (THPH4). A hemostatic disorder characterized by impaired regulation of blood coagulation and a tendency to recurrent venous thrombosis. It results in a thrombotic condition that can manifest as a severe neonatal disorder or as a milder disorder with late-onset thrombophilia. The severe form leads to neonatal death through massive neonatal venous thrombosis. Often associated with ecchymotic skin lesions which can turn necrotic called purpura fulminans, this disorder is very rare. Belongs to the peptidase S1 family. Protein type: Apoptosis; Protease; EC 3.4.21.69 Cellular Component: extracellular space; extracellular region Molecular Function: peptidase activity; hydrolase activity; serine-type peptidase activity; serine-type endopeptidase activity; calcium ion binding; catalytic activity Biological Process: hemostasis; negative regulation of blood coagulation; proteolysis; blood coagulation; negative regulation of apoptosis
Research Articles on PROC	**1.** Data identify anticoagulant activated protein C as a "metaplastic molecule", capable of shifting the threshold of LTP towards further potentiation

Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/mouse-sirna/proc/8218452