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

SANTA CRUZ BIOTECHNOLOGY, INC.

PLC ε2 siRNA (m): sc-152296

BACKGROUND

Phosphoinositide-specific phospholipase C (PLC) plays a crucial role in the initiation of receptor mediated signal transduction through the generation of the two second messengers, inositol 1,4,5-triphosphate (Ins(1,4,5)P3) and diacylglycerol from phosphatidylinositol 4,5-bisphosphate. There are many mammalian PLC isozymes, including PLC β1, PLC β2, PLC β3, PLC β4, PLC γ1, PLC γ2, PLC δ1, PLC δ2, PLC ε and PLC ε2. PLC ε2 (Phospholipase C ε 2), also known as Inactive phospholipase C-like protein 2 (PLCL2) and PRIP-2, is a 1,127 amino acid cytoplasmic protein that may play a role in the regulation of Ins(1,4,5)P3 around the endoplasmic reticulum. PLC ε2 contains a C2 domain, a PH domain, a PI-PLC X-box domain (X-box) and a PI-PLC Y-box domain (Y-box). The X-box and Y-box domains are usually important for catalytic activity, though PLC ε2 seems to be catalytically inactive. PLC ε2, along with PRIP-1, may play a role in trafficking certain GABA receptors. There are three isoforms of PLC ε2 that are expressed as a result of alternative splicing events.

REFERENCES

1. Kanematsu, T., et al. 2002. Role of the PLC-related, catalytically inactive protein p130 in $GABA_A$ receptor function. EMBO J. 21: 1004-1011.
2. Uji, A., et al. 2002. Molecules interacting with PRIP-2, a novel Ins(1,4,5)P3 binding protein type 2: Comparison with PRIP-1. Life Sci. 72: 443-453.
3. Kanematsu, T., et al. 2005. PRIP, a novel Ins(1,4,5)P3 binding protein, functional significance in Ca^{2+} signaling and extension to neuroscience and beyond. Mol. Cells 20: 305-314.
4. Yanagihori, S., et al. 2006. Protein phosphatase regulation by PRIP, a PLC-related catalytically inactive protein—implications in the phospho-modulation of the GABAA receptor. Adv. Enzyme Regul. 46: 203-222.
5. Kanematsu, T., et al. 2006. Modulation of $GABA_A$ receptor phosphorylation and membrane trafficking by phospholipase C-related inactive protein/protein phosphatase 1 and 2A signaling complex underlying brain-derived neurotrophic factor-dependent regulation of GABAergic inhibition. J. Biol. Chem. 281: 22180-22189.
6. Chen, Z.W. and Olsen, R.W. 2007. $GABA_A$ receptor associated proteins: a key factor regulating $GABA_A$ receptor function. J. Neurochem. 100: 279-294.

CHROMOSOMAL LOCATION

Genetic locus: Plcl2 (mouse) mapping to 17 C.

PRODUCT

PLC ε2 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 PLC ε2 shRNA Plasmid (m): sc-152296-SH and PLC ε2 shRNA (m) Lentiviral Particles: sc-152296-V as alternate gene silencing products.

For independent verification of PLC ε2 (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-152296A, sc-152296B and sc-152296C.

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

PLC ε2 siRNA (m) is recommended for the inhibition of PLC ε2 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 PLC ε2 gene expression knockdown using RT-PCR Primer: PLC ε2 (m)-PR: sc-152296-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.