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.

LOC100039707 siRNA (m): sc-147058

BACKGROUND

MTHFS (5-formyltetrahydrofolate cyclo-ligase) is a cytosolic protein involved in the formate metabolic process. MTHFS can be account for up to thirty percent of a cells cytoplasmic folate derivitives. MTHFS, with a magnesium cofactor, catalyzes the ATP-dependent reaction that reduces 5-formyltetrahydrofolate to 5,10-methenyltetrahydrofolate. Folate is a necessary molecule for DNA replication and a deficiency in folate can lead to numerous disease states. During DNA replication 5,10-methenyltetrahydrofolate is oxidized and MTHFS is responsible for resetting the molecule.

REFERENCES

1. Anguera, M.C., Liu, X. and Stover, P.J. 2004. Cloning, expression, and purification of 5,10-methenyltetrahydrofolate synthetase from Mus musculus. Protein Expr. Purif. 35: 276-283.
2. Chen, S., Yakunin, A.F., Proudfoot, M., Kim, R. and Kim, S.H. 2005. Structural and functional characterization of a 5,10-methenyltetrahydrofolate synthetase from *Mycoplasma pneumoniae* (GI: 13508087). Proteins 61: 433-443.
3. Anguera, M.C. and Stover, P.J. 2006. Methenyltetrahydrofolate synthetase is a high-affinity catecholamine-binding protein. Arch. Biochem. Biophys. 455: 175-187.
4. Field, M.S., Szebenyi, D.M. and Stover, P.J. 2006. Regulation of *de novo* purine biosynthesis by methenyltetrahydrofolate synthetase in neuroblastoma. J. Biol. Chem. 281: 4215-4221.
5. Lee, K.M., Lan, Q., Kricker, A., Purdue, M.P., Grulich, A.E., Vajdic, C.M., Turner, J., Whitby, D., Kang, D., Chanock, S., Rothman, N. and Armstrong, B.K. 2007. One-carbon metabolism gene polymorphisms and risk of non-Hodgkin lymphoma in Australia. Hum. Genet. 122: 525-533.
6. Matakidou, A., El Galta, R., Rudd, M.F., Webb, E.L., Bridle, H., Eisen, T. and Houlston, R.S. 2007. Prognostic significance of folate metabolism polymorphisms for lung cancer. Br. J. Cancer 97: 247-252.
7. Lim, U., Wang, S.S., Hartge, P., Cozen, W., Kelemen, L.E., Chanock, S., Davis, S., Blair, A., Schenk, M., Rothman, N. and Lan, Q. 2007. Gene-nutrient interactions among determinants of folate and one-carbon metabolism on the risk of non-Hodgkin lymphoma: NCI-SEER case-control study. Blood 109: 3050-3059.
8. Field, M.S., Szebenyi, D.M., Perry, C.A. and Stover, P.J. 2007. Inhibition of 5,10-methenyltetrahydrofolate synthetase. Arch. Biochem. Biophys. 458: 194-201.

CHROMOSOMAL LOCATION

Genetic locus: Mthfsl (mouse) mapping to 9 E3.1.

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.

PRODUCT

LOC100039707 siRNA (m) is a target-specific 19-25 nt siRNA 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 LOC100039707 shRNA Plasmid (m): sc-147058-SH and LOC100039707 shRNA (m) Lentiviral Particles: sc-147058-V as alternate gene silencing products.

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

LOC100039707 siRNA (m) is recommended for the inhibition of LOC100039707 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 LOC100039707 gene expression knockdown using RT-PCR Primer: LOC100039707 (m)-PR: sc-147058-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.