



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](https://www.linkedin.com/company/szaboscandic) 

DnaJC16 siRNA (m): sc-143102

BACKGROUND

With the presence of the J domain defining a protein as a member, the DnaJ family has evolved with diverse cellular localization and functions and is one of the largest chaperone families. DnaJ heat-shock-induced proteins are derived from the bacterium *Escherichia coli* and are controlled by the htpR regulatory protein. DnaJ proteins play a critical role in the HSP 70 chaperone machine by interacting with HSP 70 to stimulate ATP hydrolysis. Members of this family contain cysteine-rich regions composed of zinc fingers that form a peptide-binding domain responsible for chaperone function. DnaJ proteins are important mediators of proteolysis and are involved in the regulation of protein degradation, exocytosis and endocytosis. DnaJC16 (DnaJ homolog subfamily C member 16), also known as KIAA0962, is a 782 amino acid single-pass type IV membrane protein. DnaJC16 contains one J domain and one thioredoxin domain and is expressed as two isoforms produced by alternative splicing events.

REFERENCES

1. Saito, H. and Uchida, H. 1978. Organization and expression of the dnaJ and dnaK genes of *Escherichia coli* K12. Mol. Gen. Genet. 164: 1-8.
2. Georgopoulos, C.P., Lundquist-Heil, A., Yochem, J. and Feiss, M. 1980. Identification of the *E. coli* dnaJ gene product. Mol. Gen. Genet. 178: 583-588.
3. Suh, W.C., Burkholder, W.F., Lu, C.Z., Zhao, X., Gottesman, M.E. and Gross, C.A. 1998. Interaction of the Hsp70 molecular chaperone, DnaK, with its cochaperone DnaJ. Proc. Natl. Acad. Sci. USA 95: 15223-15228.
4. Brown, H., Larsson, O., Bränström, R., Yang, S.N., Leibiger, B., Leibiger, I., Fried, G., Moede, T., Deeney, J.T., Brown, G.R., Jacobsson, G., Rhodes, C.J., Braun, J.E., Scheller, R.H., Corkey, B.E., Berggren, P.O. and Meister, B. 1998. Cysteine string protein (CSP) is an Insulin secretory granule-associated protein regulating β -cell exocytosis. EMBO J. 17: 5048-5058.
5. Boal, F., Zhang, H., Tessier, C., Scotti, P. and Lang, J. 2004. The variable C-terminus of cysteine string proteins modulates exocytosis and protein-protein interactions. Biochemistry 43: 16212-16223.
6. Shi, Y.Y., Hong, X.G. and Wang, C.C. 2005. The C-terminal (331-376) sequence of *Escherichia coli* DnaJ is essential for dimerization and chaperone activity: a small angle X-ray scattering study in solution. J. Biol. Chem. 280: 22761-22768.
7. Boal, F., Le Pevelen, S., Cziepluch, C., Scotti, P. and Lang, J. 2007. Cysteine-string protein isoform β (Csp β) is targeted to the *trans*-Golgi network as a non-palmitoylated CSP in clonal β -cells. Biochim. Biophys. Acta 1773: 109-119.
8. Genevaux, P., Georgopoulos, C. and Kelley, W.L. 2007. The Hsp70 chaperone machines of *Escherichia coli*: a paradigm for the repartition of chaperone functions. Mol. Microbiol. 66: 840-857.
9. Acebron, S.P., Fernández-Saiz, V., Taneva, S.G., Moro, F. and Muga, A. 2008. DnaJ recruits DnaK to protein aggregates. J. Biol. Chem. 283: 1381-1390.

CHROMOSOMAL LOCATION

Genetic locus: Dnajc16 (mouse) mapping to 4 E1.

PRODUCT

DnaJC16 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see DnaJC16 shRNA Plasmid (m): sc-143102-SH and DnaJC16 shRNA (m) Lentiviral Particles: sc-143102-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 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

DnaJC16 siRNA (m) is recommended for the inhibition of DnaJC16 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 DnaJC16 gene expression knockdown using RT-PCR Primer: DnaJC16 (m)-PR: sc-143102-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.