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## Lieferung & Zahlungsart

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## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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SANTA CRUZ BIOTECHNOLOGY, INC.

# OBFC1 siRNA (m): sc-150159

## BACKGROUND

The oligonucleotide/oligosaccharide-binding (OB) domain is a dense structural motif normally used for nucleic acid recognition. Proteins containing an OB motif are structurally characterized by a small β-barrel fold formed from several strands connected by modulating loops that recognize either single-stranded or unusually structured nucleic acids. The OB-fold core is extremely variable in length and in functional detail, and members of the OB-fold domain family have a low degree of sequence similarity. However, certain features of ligand binding are conserved among OB-fold complexes. OB-fold proteins are critical for DNA replication, DNA recombination, DNA repair, transcription, translation, cold shock response and telomere maintenance. OBFC1 (oligonucleotide/oligosaccharide-binding fold containing 1) is a 368 amino acid protein that may bind nucleic acids or oligosaccharides. Two isoforms of OBFC1 may exist due to alternative splicing.

## REFERENCES


1. Murzin, A.G. 1993. OB (oligonucleotide/oligosaccharide binding)-fold: common structural and functional solution for non-homologous sequences. EMBO J. 12: 861-867.
2. Agrawal, V. and Kishan, R.K. 2001. Functional evolution of two subtly different (similar) folds. BMC Struct. Biol. 1: 5.
3. Bochkareva, E., et al. 2002. Structure of the RPA trimerization core and its role in the multistep DNA-binding mechanism of RPA. EMBO J. 21: 1855-1863.
4. Martinez Del Pozo, A., et al. 2002. The antifungal protein AFP of *Aspergillus giganteus* is an oligonucleotide/oligosaccharide binding (OB) fold-containing protein that produces condensation of DNA. J. Biol. Chem. 277: 46179-46183.
5. Mitton-Fry, R.M., et al. 2002. Conserved structure for single-stranded telomeric DNA recognition. Science 296: 145-147.
6. Theobald, D.L., et al. 2003. Nucleic acid recognition by OB-fold proteins. Annu. Rev. Biophys. Biomol. Struct. 32: 115-133.
7. Kerr, I.D., et al. 2003. Insights into ssDNA recognition by the OB fold from a structural and thermodynamic study of Sulfolobus SSB protein. EMBO J. 22: 2561-2570.


## CHROMOSOMAL LOCATION

Genetic locus: Obfc1 (mouse) mapping to 19 D1.

## PRODUCT

OBFC1 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 OBFC1 shRNA Plasmid (m): sc-150159-SH and OBFC1 shRNA (m) Lentiviral Particles: sc-150159-V as alternate gene silencing products.

For independent verification of OBFC1 (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-150159A, sc-150159B and sc-150159C.

## 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

OBFC1 siRNA (m) is recommended for the inhibition of OBFC1 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.

## GENE EXPRESSION MONITORING

OBFC1 (E-10): sc-376450 is recommended as a control antibody for monitoring of OBFC1 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor OBFC1 gene expression knockdown using RT-PCR Primer: OBFC1 (m)-PR: sc-150159-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.