



Product Specification Sheet

Product Name	Stemgent® Sox2 mRNA, Human
Description	Stemgent Sox2 mRNA encodes the Sox2 protein commonly used in cellular reprogramming systems for the generation of induced pluripotent stem (iPS) cells. This <i>in vitro</i> transcribed mRNA incorporates both pseudouridine and 5-methylcytidine modified nucleotides to minimize the cellular interferon response to single stranded RNA. ^{1,2} Repeated transfection of Sox2 mRNA in combination with mRNAs encoding Oct4, Klf4, Lin-28 and c-Myc has been shown to reprogram human fibroblasts. ²
Catalog Number	05-0016
Size	20 µg
Formulation	100 ng/µL in RNase-free TE buffer, pH 7.0
Storage and Stability	Store at or below -70°C. Stable for a minimum of 3 months from date of receipt when stored as directed. Wear gloves when handling this product. Use RNase-free tubes and barrier pipette tips. Thaw on ice. Keep on ice until the sample is removed. Avoid multiple freezing and thawing cycles (≤5). Aliquot to experimental quantities.
Quality Control	Proper protein expression and localization have been confirmed by immunocytochemistry.
Recommended Usage	Stemgent Sox2 mRNA, Human should be transfected using a protocol specifically optimized for the cell type used in the experiment.
References	<ol style="list-style-type: none">1. Angel, M., and Yanik, M.F. (2010) Innate immune suppression enables frequent transfection with RNA encoding reprogramming proteins. PLoS One 5: e11756.2. Warren, L., Manos, P.D., Ahfeldt, T., Loh, Y.H., Li, H., Lau, F., Ebina, W., Mandal, P.K., Smith, Z.D., Meissner, A., Daley, D.Q., Brack, A.S., Collins, J.J., Cowan, C., Schlaeger, T.M., and Rossi, D.J. (2010) Highly efficient reprogramming to pluripotency and directed differentiation of human cells with synthetic modified mRNA. Cell Stem Cell. 7: 618-630.3. Yakubov, E., Rechavi, G., Rozenblatt, S., and Givol, D. (2010) Reprogramming of human fibroblasts to pluripotent stem cells using mRNA of four transcription factors. Biochem Biophys Res Commun. 394: 189-193.
Related Products	Stemgent mRNA Reprogramming Factors Set: hOKSML (Cat. No. 00-0067) Stemgent Oct4 mRNA, Human (Cat. No. 05-0014) Stemgent Klf4 mRNA, Human (Cat. No. 05-0015) Stemgent Lin-28 mRNA, Human (Cat. No. 05-0017) Stemgent c-Myc mRNA, Human (Cat. No. 05-0018) Stemgent nGFP mRNA (Cat. No. 05-0019) Stemfactor™ Fibroblast Growth Factor-basic (Human Recombinant) (Cat. No. 03-0002) Stemolecule™ Y27632 (Cat. No. 04-0012)

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Notice to Purchaser

This product is intended for research purposes only. It may not be used for (i) any human or veterinary use, including without limitation therapeutic and prophylactic use, (ii) any clinical use, including without limitation diagnostic and prognostic use, (iii) any use in delivery to and/or modification of cells that are intended for clinical, diagnostic or medicinal use, including without limitation, cell-based therapy, (iv) any commercial purposes, including without limitation the performance of contract research or provision of services to a third party and the manufacture of products for general sale. Any use of this product for any of the abovementioned purposes requires a license from the Massachusetts Institute of Technology.

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