



# 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](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

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

## Ear2 siRNA (m): sc-155888

### BACKGROUND

COUP (chicken ovalbumin upstream promoter) transcription factors have been cloned in several species and identified as orphan members of the steroid/thyroid hormone receptor superfamily. COUP-TFI (also designated COUP or Ear3) and ARP-1 (also designated COUP-TFII) exhibit highly regulated and overlapping expression in most tissues. COUP-TFs are highly expressed in the developing and central nervous system, suggesting that these factors may be important in neural development and differentiation. COUP-TFs can compete for binding to response elements which are common to other members of this family, including RAR, RXR, PPAR, HNF-4, VDR and TR. They have been shown to act as negative regulators as well as initiators of transcription.

### REFERENCES

- Ladias, J.A., et al. 1992. Transcriptional regulation of human apolipoprotein genes ApoB, ApoCIII, and ApoAII by members of the steroid hormone receptor superfamily HNF4, ARP1, Ear2, and Ear3. *J. Biol. Chem.* 267: 15849-15860.
- Barnhart, K.M., et al. 1994. The sequence of a murine cDNA encoding Ear2, a nuclear orphan receptor. *Gene* 142: 313-314.
- Islam, T.C., et al. 1994. Nuclear orphan receptor-binding retinoic acid response elements in keratinocytes. *Biochem. Biophys. Res. Commun.* 203: 545-552.
- Chu, K., et al. 1997. The nuclear orphan receptors COUP-TFII and Ear2 act as silencers of the human oxytocin gene promoter. *J. Mol. Endocrinol.* 19: 163-172.
- Chu, K., et al. 1998. Nuclear orphan receptors COUP-TFII and Ear2: presence in oxytocin-producing uterine cells and functional interaction with the oxytocin gene promoter. *Mol. Cell. Endocrinol.* 137: 145-154.
- Zhang, Y., et al. 2000. Nuclear orphan receptors regulate transcription of the gene for the human luteinizing hormone receptor. *J. Biol. Chem.* 275: 2763-2770.
- Zhu, X.G., et al. 2000. The orphan nuclear receptor Ear2 is a negative coregulator for thyroid hormone nuclear receptor function. *Mol. Cell. Biol.* 20: 2604-2618.
- Zhang, Y. and Dufau, M.L. 2001. Ear2 and Ear3/COUP-TFI regulate transcription of the rat LH receptor. *Mol. Endocrinol.* 15: 1891-1905.
- Liu, X., et al. 2003. Identification of a nuclear orphan receptor Ear2 as a negative regulator of renin gene transcription. *Circ. Res.* 92: 1033-1040.

### CHROMOSOMAL LOCATION

Genetic locus: Ear2 (mouse) mapping to 14 C1.

### PRODUCT

Ear2 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Ear2 shRNA Plasmid (m): sc-155888-SH and Ear2 shRNA (m) Lentiviral Particles: sc-155888-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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

### APPLICATIONS

Ear2 siRNA (m) is recommended for the inhibition of Ear2 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  $\mu$ M in 66  $\mu$ 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.

### GENE EXPRESSION MONITORING

COUP-TF/EAR2 (F-11): sc-166941 is recommended as a control antibody for monitoring of Ear2 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-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

### RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Ear2 gene expression knockdown using RT-PCR Primer: Ear2 (m)-PR: sc-155888-PR (20  $\mu$ 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](http://www.scbt.com) for detailed protocols and support products.