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Product datasheet for RN202495

Esrrb (NM_001008516) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Esrrb (NM_001008516) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Esrrb
Synonyms:	Err2; Errb
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>RN202495 representing NM_001008516 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGTCGTCCGAAGACAGGCACCTGGGCTCTAGCTGCGGCTCCTTCATCAAGACGGAGCCATCTAGCCCAT CCTCGGGCATTGATGCCCTCAGCCACCACAGCCCCAGCGGCTCGTCGGACGCCAGCGGTGGCTTTGGCAT GGCCCTGGGCACCCACGCCAACGGTCTGGACTCTCCGCCTATGTTCGCAGGTGCGGGGCTGGGAGGCAAC CCGTGTCGCAAGAGCTACGAGGACTGTACTAGCGGTATCATGGAGGACTCGGCCATCAAGTGCGAGTACA TGCTTAACGCCATCCCCAAGCGCCTGTGCCTCGTGTGCGGGGACATTGCTTCTGGCTACCACTATGGAGT GGCCTCCTGCGAGGCTTGCAAGGCGTTCTTCAAGAGAACCATTCAAGGAAACATCGAATACAGCTGCCCT GCCACCAACGAGTGTGAGATCACCAAACGGAGGCGCAAGTCCTGTCAGGCCTGCCGGTTCATGAAATGCC TCAAAGTGGGGATGCTGAAGGAAGGCGTGCGCCTTGACCGGGTGCGAGGAGGCCGCCAGAAGTACAAGAG ACGGCTGGATTCGGAGAACAGCCCCTACCTGAGCTTACAGATTTCCCCGCCTGCTAAAAAGCCATTGACT AAGATTGTCTCGTATCTACTGGTGGCCGAGCCGGACAAGCTGTACGCTATGCCTCCCGACGATGTGCCTG AAGGGGATATCAAGGCCCTGACCACTCTCTGTGACTTGGCAGATCGGGAGCTTGTGTTCCTCATTAGCTG GGCCAAGCACATCCCAGGTTTCTCCAACCTGACACTCGGGGACCAGATGAGCCTGCTGCAGAGTGCCTGG ATGGAGATCCTCATCCTGGGCATCGTGTACCGCTCGCTTCCCTATGATGACAAGCTGGCATACGCGGAGG ACTATATCATGGATGAGGAACACTCTCGCCTGGTGGGGCTGCTGGAGCTTTACCGAGCCATCTTGCAGCT CGTACGCAGGTACAAGAAGCTCAAGGTGGAGAAGGAAGAGTTTGTGATGCTCAAAGCCCTGGCCCTTGCC AACTCAGATTCAATGTACATCGAGAACCTGGAGGCTGTGCAGAAGCTTCAGGACCTGCTGCATGAGGCGC TGCAGGACTATGAGCTGAGCCAGCGCCATGAGGAGCCACGGAGGGCGGGCAAGCTGCTGTTGACACTGCC CCTGCTGCGGCAGACGGCAGCCAAAGCCGTCCAGCACTTCTACAGTGTGAAACTGCAGGGCAAGGTGCCC ATGCACAAACTCTTCCTGGAGATGCTGGAGGCCAAGGTGTGA ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

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Restriction Sites:	SgfI-MluI
ACCN:	NM_001008516
Insert Size:	1302 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_001008516.2, NP_001008516.2
RefSeq Size:	1302 bp
RefSeq ORF:	1302 bp
Locus ID:	299210
UniProt ID:	P11475
Cytogenetics:	6q31

Gene Summary: Transcription factor that binds a canonical ESRRB recognition (ERRE) sequence 5'TCAAGGTCA-3' localized on promoter and enhancer of targets genes regulating their expression or their transcription activity (By similarity). Plays a role, in a LIF independent manner, in maintainance of self-renewal and pluripotency of embryonic and trophoblast stem cells through different signaling pathways including FGF signaling pathway and Wnt signaling pathways. Upon FGF signaling pathway activation, interacts with KDM1A by directly binding to enhancer site of ELF5 and EOMES and activating their transcription leading to self-renewal of trophoblast stem cells. Also regulates expression of multiple rod-specific genes and is required for survival of this cell type (By similarity). Plays a role as transcription factor activator of GATA6, NR0B1, POU5F1 and PERM1 (By similarity). Plays a role as transcription factor repressor of NFE2L2 transcriptional activity and ESR1 transcriptional activity (By similarity). During mitosis remains bound to a subset of interphase target genes, including pluripotency regulators, through the canonical ESRRB recognition (ERRE) sequence, leading to their transcriptional activation in early G1 phase. Can coassemble on structured DNA elements with other transcription factors like SOX2, POU5F1, KDM1A and NCOA3 to trigger ESRRB-dependent gene activation. This mechanism, in the case of SOX2 corecruitment prevents the embryonic stem cells (ESCs) to epiblast stem cells (EpiSC) transition through positive regulation of NR0B1 that inhibits the EpiSC transcriptional program. Also plays a role inner ear development by controlling expression of ion channels and transporters and in early placentation (By similarity).[UniProtKB/Swiss-Prot Function]