

Product datasheet for TP525479

Esrrb (NM_001159500) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse estrogen related receptor, beta (Esrrb), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR225479 representing NM_001159500 Red =Cloning site Green =Tags(s)

MLLNRMSSDRHLGSSCGSFIKTEPSSPSSGIDALSHHSPSGSSDASGGFGIALSTHANGLDSPPMFAGA
GLGGNPCRKSIEDCTSGIMEDSAIKCEYMLNAIPKRLCLVCGDIASGYHYGVASCEACKAFFKRTIQGNI
EYNCPATNECEITKRRRKSCQACRFMKCLKVGMKEGVRLDRVRGGRQKYKRRLDSENSPYLNLPIPPA
KKPLTKIVSNLLGVEQDKLYAMPNDIPEGDIKALTTLCELADRELVFLINWAKHIPGFPSLTLGDQMSL
LQSAWMEILILGIVYRSLPYDDKLAYAEDYIMDEEHSRLVGLLDLYRAILQLVRRYKLLKVEKEEFMILK
ALALANSDSMYIENLEAVQKLQDLLHEALQDYELSQRHEEPRRAGKLLTLPLLRQTAAKAVQHFYSVKL
QGKVPMHKLFLEMLEAKV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-MYC/DDK
Predicted MW:	49.4 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	<u>NP_001152972</u>
Locus ID:	26380



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UniProt ID: [Q61539](#), [E9QKA2](#), [Q80VS1](#)

RefSeq Size: 4309

Cytogenetics: 12 40.49 cM

RefSeq ORF: 1314

Synonyms: Err2; Errb; Estrrb; Nr3b2

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 transcriptional activity (PubMed:27601327, PubMed:23169531, PubMed:23508100, PubMed:26206133, PubMed:20534447, PubMed:18662995, PubMed:18957414, PubMed:27723719, PubMed:23019124). Plays a role, in a LIF-independent manner, in maintenance of self-renewal and pluripotency of embryonic and trophoblast stem cells through different signaling pathways including FGF signaling pathway and Wnt signaling pathways (PubMed:18957414, PubMed:26206133, PubMed:20534447, PubMed:23040478, PubMed:23040477, PubMed:23019124, PubMed:23169531). 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 (PubMed:26206133). Also regulates expression of multiple rod-specific genes and is required for survival of this cell type (PubMed:20534447). Plays a role as transcription factor activator of GATA6, NR0B1, POU5F1 and PERM1 (PubMed:18662995, PubMed:23508100, PubMed:18957414). 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 (PubMed:27723719). Can coassemble on structured DNA elements with other transcription factors like SOX2, POU5F1, KDM1A and NCOA3 to trigger ESRRB-dependent gene activation (PubMed:23019124, PubMed:23169531, PubMed:18662995, PubMed:26206133). 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 (PubMed:23169531). Also plays a role inner ear development by controlling expression of ion channels and transporters and in early placentation (PubMed:9285590, PubMed:17765677).[UniProtKB/Swiss-Prot Function]