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ESRRB Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9061c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	O95718
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB17738
Calculated MW	48054
Antigen Region	275-305

Additional Information

Gene ID	2103
Other Names	Steroid hormone receptor ERR2, ERR beta-2, Estrogen receptor-like 2, Estrogen-related receptor beta, ERR-beta, Nuclear receptor subfamily 3 group B member 2, ESRRB, ERRB2, ESRL2, NR3B2
Target/Specificity	This ESRRB antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 275-305 amino acids from the Central region of human ESRRB.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ESRRB Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ESRRB (HGNC:3473)
Synonyms	ERRB2, ESRL2, NR3B2

Function	[Isoform 3]: 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 (PubMed:17920186, PubMed:19755138). 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. Involved in morula development (2-16 cells embryos) by acting as a regulator at the 8-cell stage (By similarity). 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 (PubMed:23836911). Plays a role as transcription factor repressor of NFE2L2 transcriptional activity and ESR1 transcriptional activity (PubMed:17920186, PubMed:19755138). 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).
Cellular Location	Nucleus. Cytoplasm {ECO:0000250|UniProtKB:Q61539}. Chromosome {ECO:0000250|UniProtKB:Q61539}

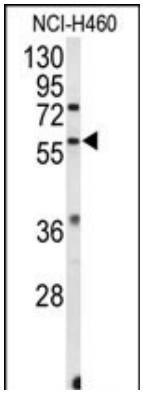
Background

ESRRB encodes a protein with similarity to the estrogen receptor. Its function is unknown; however, a similar protein in mouse plays an essential role in placental development.

References

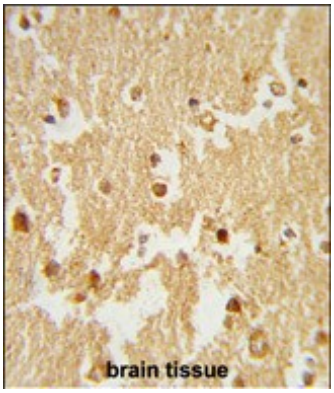
Xu,J., et.al., Proc. Natl. Acad. Sci. U.S.A. 107 (5), 2136-2140 (2010)
Bombail,V., et.al., Mol. Cell. Endocrinol. 314 (1), 53-61 (2010)

Images

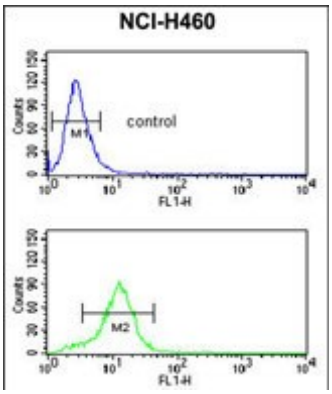


Western blot analysis of ESRRB Antibody (Center) (Cat. #AP9061c) in NCI-H460 cell line lysates (35ug/lane). ESRRB (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human brain



tissue reacted with ESRRB Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



ESRRB Antibody (Center) (Cat. #AP9061c) flow cytometric analysis of NCI-H460 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- Improving gastric cancer preclinical studies using diverse in vitro and in vivo model systems.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.