

Product datasheet for **TA336767**

Estrogen Related Receptor alpha (ESRR) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, WB
Recommended Dilution:	Immunohistochemistry-Paraffin: 2 ug/ml, Immunohistochemistry: 2 ug/ml, Immunocytochemistry/ Immunofluorescence: 1:100, Western Blot: 2 ug/ml
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide made to an N-terminal portion of human Estrogen Related Receptor alpha (within residues 1-50). [Swiss-Prot# P11474]
Formulation:	PBS, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	50 kDa
Gene Name:	estrogen related receptor alpha
Database Link:	NP_004442 Entrez Gene 26379 Mouse Entrez Gene 2101 Human P11474



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Background:

Nuclear receptors are essential in embryonic development as well as for the regulation of adult physiological functions, and estrogen related receptor alpha (ERR-alpha) is one such receptors expressed in several tissues requiring high energy demand, including heart, skeletal muscle and brain. ERR-alpha binds to ERRE (ERR-alpha response element) containing a single consensus half-site, 5'-TNAAGGTCA-3'; to MCAD response element NRRE-1 for regulating MCAD promoter, and it also regulates lactoferrin gene promoter. ERR-alpha is an orphan nuclear hormone receptor capable of regulating transcription of genes involved in multiple cellular/physiological processes such as regulation of energy metabolism wherein it is co-activated by PPAR gamma and PGC-1 alpha to regulate several genes required for mitochondrial function. ERR-alpha regulates estrogen signaling and fatty acid oxidation/adaptative bioenergetic response, and is involved in cartilage/bone formation, macrophage activation and carcinogenesis. High ERR-alpha expression levels coupled with poor prognosis have been observed in various malignancies including colon, endometrium, ovary, prostate and breast cancers, and adrenocortical carcinoma.

Synonyms:

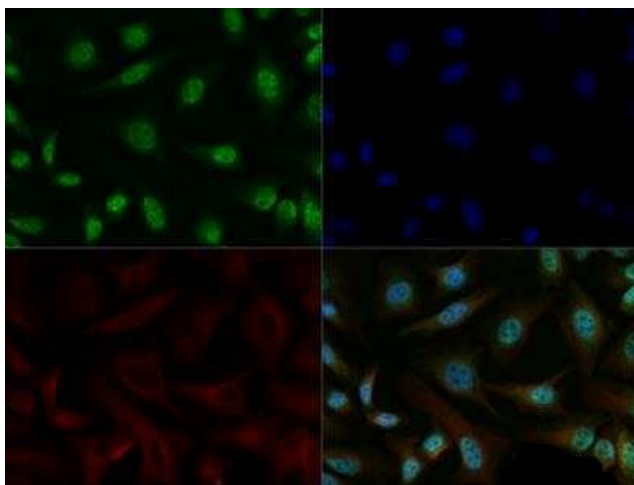
ERR1; ERRa; ERRalpha; ESRL1; NR3B1

Note:

This Estrogen Related Receptor alpha antibody is useful for Western Blot, Immunohistochemistry-Paraffin and Immunocytochemistry/Immunofluorescence applications. ERR alpha/ ESRRA localize mainly to the nucleus, but there are reports on its cytoplasmic presence also, especially in cells with high nuclear expression. In a feedback loop mechanism, it has been shown that ERK8 /MAPK15 interacts with ERR alpha to induce its CRM1-dependent translocation to cytoplasm for inhibiting its transcriptional activity via regulation of its cellular localization (PMIDs 21190936, 18070081).

Protein Families:

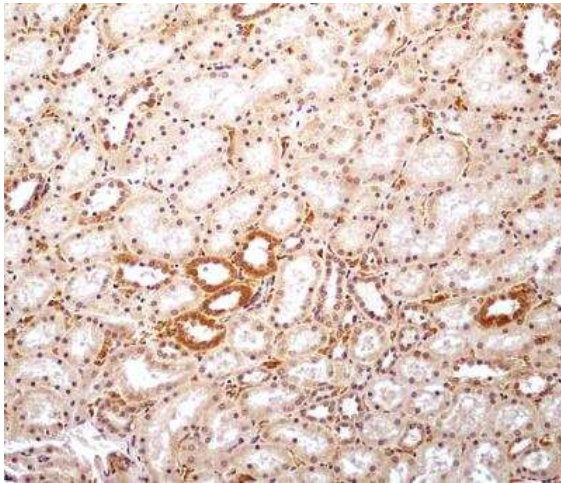
Druggable Genome, Nuclear Hormone Receptor, Transcription Factors

Product images:

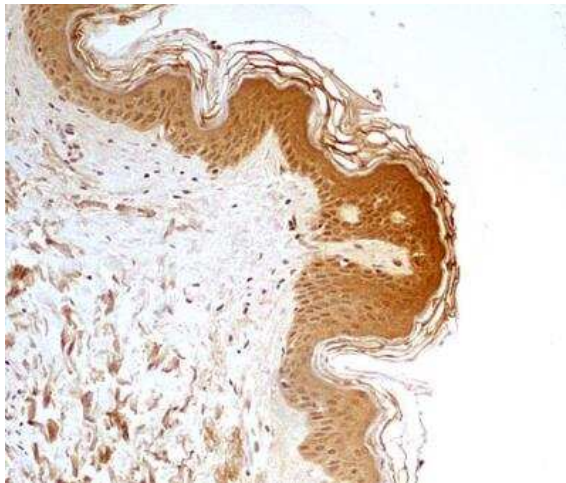
Immunocytochemistry/Immunofluorescence: ERR alpha/NR3B1 Antibody TA336767 - ERR alpha antibody was tested in HeLa cells at a 1:100 dilution against Dylight 488 (Green). Alpha tubulin and nuclei were counterstained against Dylight 568 (Red) and DAPI (Blue), respectively.



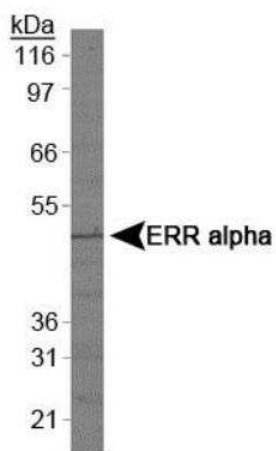
Immunocytochemistry/Immunofluorescence: ERR alpha/NR3B1 Antibody TA336767 - HeLa cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.5% Triton X-100 in PBS for 5 minutes. The cells were incubated with conjugated to DyLight 488 ([TA336767G]) at 5 ug/ml for 1 hour at room temperature. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



Immunohistochemistry-Paraffin: ERR alpha/NR3B1 Antibody TA336767 - IHC-P detection of ERR alpha/ESRRA protein in a section of normal human kidney using 5 ug/ml concentration of Estrogen Related Receptor alpha antibody. Some cells of tubules/ducts in the tested renal tissue depicted intense nuclear staining with an overall weak/diffused cytoplasmic staining. (10X Magnification)



Immunohistochemistry-Paraffin: ERR alpha/NR3B1 Antibody TA336767 - IHC-P detection of ERR alpha / ESRRA protein in a section of normal skin of human using 5 ug/ml concentration of Estrogen Related Receptor alpha antibody. The different cell types in the cellular epidermis as well as the blood vessels in the dermal layer showed positivity for ERR alpha, and the staining was found to be more intense in the nuclei compared to cytoplasm. (10X Magnification)



Western Blot: ERR alpha/NR3B1 Antibody
TA336767 - Analysis of ERR alpha in A431 cell
lysates