

## ERR $\gamma$ (K-16): sc-32969

### BACKGROUND

Estrogen and progesterone receptors are members of a family of transcription factors that are regulated by the binding of their cognate ligands. The interaction of hormone-bound estrogen receptors with estrogen responsive elements (EREs) alters transcription of ERE-containing genes. Estrogen receptor-related proteins (ERR $\alpha$ ,  $\beta$  and  $\gamma$ ) are orphan nuclear receptors. Like estrogen receptors, ERRs bind specifically to EREs to activate reporter genes. EREs are constitutively active without binding to estrogen. The biological response to progesterone is mediated by two distinct forms of the human progesterone receptor (PR-A and PR-B), which arise from alternative splicing. In most cells, PR-B functions as a transcriptional activator of progesterone-responsive genes, whereas PR-A functions as a transcriptional inhibitor of all steroid hormone receptors. mPR is a membrane progesterin receptor. The predicted 436-amino acid ERR $\gamma$  protein which presumably localizes to the nucleus, is expressed in the heart, kidney, brain, lung, bone marrow, adrenal gland, trachea, spinal cord and thyroid gland tissues.

### REFERENCES

1. Eudy, J.D., et al. 1998. Isolation of a gene encoding a novel member of from the critical region of Usher syndrome type IIa at 1q41. *Genomics* 50: 382-384.
2. Hong, H., et al. 1999. Hormone-independent transcriptional activation and coactivator binding by novel orphan nuclear receptor ERR3. *J. Biol. Chem.* 274: 22618-22626.
3. Heard, D.J., et al. 2000. Human ERR $\gamma$ , a third member of the estrogen receptor-related receptor (ERR) subfamily of orphan nuclear receptors: tissue-specific isoforms are expressed during development and in the adult. *Mol. Endocrinol.* 14: 382-392.
4. Greschik, H., et al. 2002. Structural and functional evidence for ligand-independent transcriptional activation by the estrogen-related receptor 3. *Mol. Cell* 9: 303-313.

### CHROMOSOMAL LOCATION

Genetic locus: ESRRG (human) mapping to 1q41; Esrrg (mouse) mapping to 1 H6.

### SOURCE

ERR $\gamma$  (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ERR $\gamma$  of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-32969 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### APPLICATIONS

ERR $\gamma$  (K-16) is recommended for detection of ERR $\gamma$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ERR $\gamma$  (K-16) is also recommended for detection of ERR $\gamma$  in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ERR $\gamma$  siRNA (h): sc-44704, ERR $\gamma$  siRNA (m): sc-44705, ERR $\gamma$  shRNA Plasmid (h): sc-44704-SH, ERR $\gamma$  shRNA Plasmid (m): sc-44705-SH, ERR $\gamma$  shRNA (h) Lentiviral Particles: sc-44704-V and ERR $\gamma$  shRNA (m) Lentiviral Particles: sc-44705-V.

Molecular Weight of ERR $\gamma$  isoforms: 51/49 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### SELECT PRODUCT CITATIONS

1. Morice, L., et al. 2011. Antiproliferative and proapoptotic effects of bisphenol A on human trophoblastic JEG-3 cells. *Reprod. Toxicol.* 32: 69-76.

### 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) or our catalog for detailed protocols and support products.

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Try **ERR $\gamma$  (D-1): sc-393969**, our highly recommended monoclonal alternative to ERR $\gamma$  (K-16).