

ERR α (D-17): sc-32972

BACKGROUND

Estrogen related receptor α (ERR α) is a nuclear receptor in the superfamily of ligand-regulated transcription factors and is a member of the NR3B orphan nuclear receptor subgroup (consisting of α , β and γ). ERR α plays a role in modulating the estrogen signaling pathway. In addition, the expression of ERR α has been shown to increase during fasting and cold exposure. ERR α may be important for regulating mitochondrial biogenesis and oxidative metabolism by acting directly on genes necessary for mitochondrial function. Mice lacking ERR α are unable to maintain their body temperature in the cold. ERR α may also be involved in the maintenance and formation of cartilage. This information could be useful in finding therapeutic agents for a variety of diseases affecting the joints.

REFERENCES

1. Chen, F., et al. 1999. Identification of two hERR2-related novel nuclear receptors utilizing bioinformatics and inverse PCR. *Gene* 228: 101-109.
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. 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.
4. Hentschke, M., et al. 2003. Identification of PNRC2 and TLE1 as activation function-1 cofactors of the orphan nuclear receptor ERR γ . *Biochem. Biophys. Res. Commun.* 312: 975-982.
5. Cheung, C.P., et al. 2005. Expression and functional study of estrogen receptor-related receptors in human prostatic cells and tissues. *J. Clin. Endocrinol. Metab.* 90: 1830-1844.

CHROMOSOMAL LOCATION

Genetic locus: ESRRA (human) mapping to 11q13.1; Esrra (mouse) mapping to 19 A.

SOURCE

ERR α (D-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ERR α of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-32972 P, (100 μ 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.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

ERR α (D-17) is recommended for detection of ERR α of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

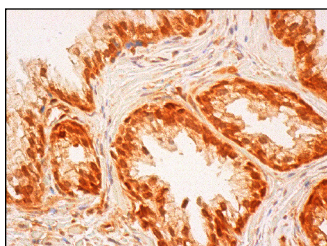
ERR α (D-17) is also recommended for detection of ERR α in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ERR α siRNA (h): sc-44706, ERR α siRNA (m): sc-44707, ERR α shRNA Plasmid (h): sc-44706-SH, ERR α shRNA Plasmid (m): sc-44707-SH, ERR α shRNA (h) Lentiviral Particles: sc-44706-V and ERR α shRNA (m) Lentiviral Particles: sc-44707-V.

Molecular Weight of ERR α : 53 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HeLa + serum-starved cell lysate: sc-24693 or mouse brain extract: sc-2253.

DATA



ERR α (D-17): sc-32972. Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate tissue showing nuclear staining of glandular cells.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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Try **ERR α (2ERR2): sc-65718** or **ERR α (2ERR7): sc-65720**, our highly recommended monoclonal alternatives to ERR α (D-17).