

## ERR $\alpha$ (H-80): sc-66882

### BACKGROUND

Estrogen related receptor  $\alpha$  (ERR $\alpha$ ) 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  $\alpha$ ,  $\beta$ , and  $\gamma$ ). ERR $\alpha$  plays a role in modulating the estrogen signaling pathway. In addition, the expression of ERR $\alpha$  has been shown to increase during fasting and cold exposure. ERR $\alpha$  may be important for regulating mitochondrial biogenesis and oxidative metabolism by acting directly on genes necessary for mitochondrial function. Mice lacking ERR $\alpha$  are unable to maintain their body temperature in the cold. ERR $\alpha$  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.

### CHROMOSOMAL LOCATION

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

### SOURCE

ERR $\alpha$  (H-80) is a rabbit polyclonal antibody raised against amino acids 81-160 mapping near the N-terminus of ERR $\alpha$  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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-66882 X, 200  $\mu$ g/0.1 ml.

### STORAGE

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

### APPLICATIONS

ERR $\alpha$  (H-80) is recommended for detection of ERR $\alpha$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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).

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

ERR $\alpha$  (H-80) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

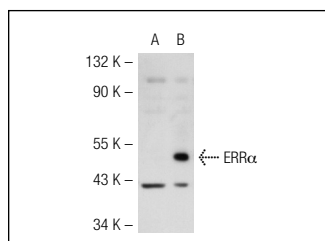
Molecular Weight of ERR $\alpha$ : 53 kDa.

Positive Controls: ERR $\alpha$  (h): 293T Lysate: sc-112428, HeLa whole cell lysate: sc-2200 or mouse brain extract: sc-2253.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### DATA



ERR $\alpha$  (H-80): sc-66882. Western blot analysis of ERR $\alpha$  expression in non-transfected: sc-117752 (A) and human ERR $\alpha$  transfected: sc-112428 (B) 293T whole cell lysates.

### SELECT PRODUCT CITATIONS

- Bremer, K., et al. 2012. Transcriptional regulation of temperature-induced remodeling of muscle bioenergetics in goldfish. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 303: R150-R158.

### 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.



Try **ERR $\alpha$  (2ERR2): sc-65718** or **ERR $\alpha$  (2ERR7): sc-65720**, our highly recommended monoclonal alternatives to ERR $\alpha$  (H-80).