SANTA CRUZ BIOTECHNOLOGY, INC.

ERβ (H-150): sc-8974



BACKGROUND

Estrogen receptors (ER) are members of the steroid/thyroid hormone receptor superfamily of ligand-activated transcription factors. Estrogen receptors, including ER α and ER β , contain DNA binding and ligand binding domains and are critically involved in regulating the normal function of reproductive tissues. ER α and ER β have been shown to be differentially activated by various ligands. Receptor-ligand interactions trigger a cascade of events, including dissociation from heat shock proteins, receptor dimerization, phosphorylation and the association of the hormone activated receptor with specific regulatory elements in target genes. Evidence suggests that ER α and ER β may be regulated by distinct mechanisms even though they share many functional characteristics.

CHROMOSOMAL LOCATION

Genetic locus: ESR2 (human) mapping to 14q23.2; Esr2 (mouse) mapping to 12 C3.

SOURCE

 $\text{ER}\beta$ (H-150) is a rabbit polyclonal antibody raised against amino acids 1-150 of $\text{ER}\beta$ of human origin.

PRODUCT

Each vial contains 200 μg 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-8974 X, 200 $\mu g/0.1$ ml.

APPLICATIONS

ER β (H-150) is recommended for detection of ER β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 ER β siRNA (h): sc-35325, ER β siRNA (m): sc-35326, ER β siRNA (r): sc-77356, ER β shRNA Plasmid (h): sc-35325-SH, ER β shRNA Plasmid (m): sc-35326-SH, ER β shRNA Plasmid (r): sc-77356-SH, ER β shRNA (h) Lentiviral Particles: sc-35325-V, ER β shRNA (m) Lentiviral Particles: sc-35326-V and ER β shRNA (r) Lentiviral Particles: sc-77356-V.

 $ER\beta$ (H-150) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ERβ: 56 kDa.

Positive Controls: F9 cell lysate: sc-2245, NIH/3T3 whole cell lysate: sc-2210 or mouse thymus extract: sc-2406.

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.

DATA



EHS (H-150): sc-89/4. Western blot analysis of EHB expression in I-11.15 (**A**), F9 (**B**) and NIH/3T3 (**C**) whole cell lysates and mouse thymus (**D**) and mouse spleen (**E**) tissue extracts.

SELECT PRODUCT CITATIONS

- Garcia Pedrero, J., et al. 2002. Calmodulin is a selective modulator of estrogen receptors. Mol. Endoc. 16: 947-960.
- Chung, D., et al. 2011. Mouse primary uterine cell coculture system revisited: ovarian hormones mimic the aspects of *in vivo* uterine cell proliferation. Endocrinology 152: 3246-3258.
- 3. Lu, L., et al. 2011. Immunolocalization of androgen receptor, aromatase cytochrome P450, estrogen receptor α and estrogen receptor β proteins during the breeding season in scent glands of muskrats *(Ondatra zibethicus)*. Zool. Sci. 28: 727-732.
- Barboro, P., et al. 2011. Androgen receptor and heterogeneous nuclear ribonucleoprotein K colocalize in the nucleoplasm and are modulated by bicalutamide and 4-hydroxy-tamoxifen in prostatic cancer cell lines. Prostate 71: 1466-1479.
- Miró, A.M., et al. 2011. 17β-estradiol regulates oxidative stress in prostate cancer cell lines according to ERα/ERβ ratio. J. Steroid Biochem. Mol. Biol. 123: 133-139.
- Gambino, Y.P., et al. 2012. Regulation of leptin expression by 17β-estradiol in human placental cells involves membrane associated estrogen receptor α. Biochim. Biophys. Acta 1823: 900-910.
- 7. Simoes, D.C., et al. 2012. Glucocorticoid and estrogen receptors are reduced in mitochondria of lung epithelial cells in asthma. PLoS ONE 7: e39183.
- Sastre-Serra, J., et al. 2012. Mitochondrial dynamics is affected by 17βestradiol in the MCF-7 breast cancer cell line. Effects on fusion and fission related genes. Int. J. Biochem. Cell Biol. 44: 1901-1905.
- 9. Sastre-Serra, J., et al. 2012. The effects of 17 β -estradiol on mitochondrial biogenesis and function in breast cancer cell lines are dependent on the ER α /ER β ratio. Cell. Physiol. Biochem. 29: 261-268.
- Nadal-Serrano, M., et al. 2012. The ERα/ERβ ratio determines oxidative stress in breast cancer cell lines in response to 17β-estradiol. J. Cell. Biochem. 113: 3178-3185.