

ERR γ (D-1): sc-393969

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 α , β and γ) 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 progestin receptor. The predicted 436 amino acid ERR γ 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 the nuclear receptor superfamily 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 γ , 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.

CHROMOSOMAL LOCATION

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

SOURCE

ERR γ (D-1) is a mouse monoclonal antibody raised against amino acids 81-118 mapping near the N-terminus of ERR γ of human origin.

PRODUCT

Each vial contains 200 μ g IgG γ_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-393969 X, 200 μ g/0.1 ml.

ERR γ (D-1) is available conjugated to agarose (sc-393969 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393969 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393969 PE), fluorescein (sc-393969 FITC), Alexa Fluor[®] 488 (sc-393969 AF488), Alexa Fluor[®] 546 (sc-393969 AF546), Alexa Fluor[®] 594 (sc-393969 AF594) or Alexa Fluor[®] 647 (sc-393969 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-393969 AF680) or Alexa Fluor[®] 790 (sc-393969 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

ERR γ (D-1) is recommended for detection of ERR γ of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ERR γ (D-1) is also recommended for detection of ERR γ in additional species, including equine, canine, bovine and porcine.

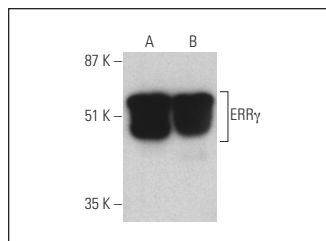
Suitable for use as control antibody for ERR γ siRNA (h): sc-44704, ERR γ siRNA (m): sc-60606, ERR γ shRNA Plasmid (h): sc-44704-SH, ERR γ shRNA Plasmid (m): sc-60606-SH, ERR γ shRNA (h) Lentiviral Particles: sc-44704-V and ERR γ shRNA (m) Lentiviral Particles: sc-60606-V.

ERR γ (D-1) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

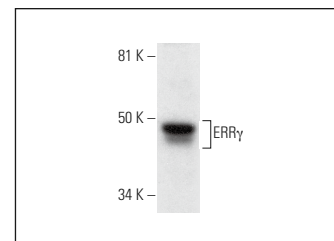
Molecular Weight of ERR γ isoforms: 51/49 kDa.

Positive Controls: WI-38 whole cell lysate: sc-364260, C2C12 whole cell lysate: sc-364188 or A549 cell lysate: sc-2413.

DATA



ERR γ (D-1) HRP: sc-393969 HRP. Direct western blot analysis of ERR γ expression in WI-38 (A) and C2C12 (B) whole cell lysates.



ERR γ (D-1): sc-393969. Western blot analysis of ERR γ expression in A549 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Mazar, J., et al. 2016. MicroRNA 211 functions as a metabolic switch in human melanoma cells. *Mol. Cell. Biol.* 36: 1090-1108.
2. Zhao, H., et al. 2019. Estrogen-related receptor γ induces angiogenesis and extracellular matrix degradation of temporomandibular joint osteoarthritis in rats. *Front. Pharmacol.* 10: 1290.

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.

PROTOCOLS

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