**ERβ (1531): sc-53494**

**BACKGROUND**

Estrogen receptors (ER) are members of the steroid/thyroid hormone receptor superfamily of ligand-activated transcription factors. Estrogen receptors, including ERα and ERβ, contain DNA binding and ligand binding domains and are critically involved in regulating the normal function of reproductive tissues. They are located in the nucleus, though some estrogen receptors associate with the cell surface membrane and can be rapidly activated by exposure of cells to estrogen. ERα and ERβ 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 ERα and ERβ 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 256-505 of estrogen receptor β of human origin.

**SOURCE**

ERβ (1531) is a mouse monoclonal antibody raised against amino acids 256-505 of estrogen receptor β of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. ERβ (1531) is available conjugated to agarose (sc-53494 AC), 500 µg/0.25 ml agarose in 1 ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53494 PE), fluorescein (sc-53494 FITC), Alexa Fluor® 488 (sc-53494 AF488), Alexa Fluor® 546 (sc-53494 AF546), Alexa Fluor® 594 (sc-53494 AF594) or Alexa Fluor® 647 (sc-53494 AF647), 200 µg/ml, for WB (RGB), IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53494 AF680) or Alexa Fluor® 790 (sc-53494 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

ERβ (1531) is recommended for detection of ERβ in mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with ERα.

Suitable for use as control antibody for ERβ siRNA (h): sc-35325, ERβ siRNA (m): sc-35326, ERβ siRNA (r): sc-77356, ERβ shRNA Plasmid (h): sc-35325-SH, ERβ shRNA Plasmid (m): sc-35326-SH, ERβ shRNA Plasmid (r): sc-77356-SH, ERβ shRNA (h) Lentiviral Particles: sc-35325-V, ERβ shRNA (m) Lentiviral Particles: sc-35326-V and ERβ shRNA (r) Lentiviral Particles: sc-77356-V.

Molecular Weight of ERβ: 56 kDa.

Positive Controls: F9 cell lysate: sc-2245, NIH/3T3 whole cell lysate: sc-2210 or rat brain extract: sc-2392.

**STORAGE**

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

**DATA**

Western blot analysis of ERβ phosphorylation in untreated (A, C) and lambda protein phosphatase (sc-26013A) treated (B, D) rat brain tissue extracts.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

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