ERα (2Q418): sc-71064

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: ESR1 (human) mapping to 6q25.1; ESR1 (mouse) mapping to 10 A1.

SOURCE

ERα (2Q418) is a mouse monoclonal antibody raised against amino acids 495-595 of ERα of bovine 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.

APPLICATIONS

ERα (2Q418) is recommended for detection of ERα of mouse, rat and human origin by Western Blotting (starting dilution 1:200; dilution range 1:50-1:1000), immunoprecipitation (starting dilution 1:50, dilution range 1:50-1:1000) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

ERα (2Q418) is also recommended for detection of ERα in additional species, including bovine. Suitable for use as control antibody for ERα siRNA (h): sc-29305, ERα siRNA (m): sc-29306, ERα shRNA Plasmid (h): sc-29305-SH, ERα shRNA Plasmid (m): sc-29306-SH, ERα shRNA Plasmid (r): sc-45949-SH, ERα shRNA (h) Lentiviral Particles: sc-29306-V, ERα shRNA (m) Lentiviral Particles: sc-29306-V and ERα shRNA (r) Lentiviral Particles: sc-45949-V.

Molecular Weight of ERα long isoform: 66 kDa.
Molecular Weight of ERα short isoform: 54 kDa.
Molecular Weight of ERα: 48 kDa.
Molecular Weight of ERα: 36 kDa.
Positive Controls: MCF7 nuclear extract: sc-2149, MOLT-4 cell lysate: sc-2233 or Raji whole cell lysate: sc-364236.

STORAGE

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

DATA

132 K –
90 K –
55 K –
43 K –

ERα (2Q418): sc-71064. Western blot analysis of ERα expression in MCF7 nuclear extract (A) and MOLT-4 (B) and Raji (C) whole cell lysates.

SELECT PRODUCT CITATIONS


RESEARCH USE

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

CONJUGATES

See ERα (C-3): sc-514857 for ERα antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.