**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 6q25.1; Esr1 (mouse) mapping to 10 A1.

**SOURCE**

Estrogen Receptor α (2Q418) is a mouse monoclonal antibody raised against amino acids 495-595 of Estrogen Receptor α of bovine origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

Estrogen Receptor α (2Q418) is recommended for detection of Estrogen Receptor α 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Estrogen Receptor α (2Q418) is also recommended for detection of Estrogen Receptor α in additional species, including bovine.


Molecular Weight of Estrogen Receptor α long/short isoform: 66/54 kDa.

Molecular Weight of ERα/ERβ: 48/36 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**

![Estrogen Receptor α (2Q418): Western blot analysis of Estrogen Receptor α expression in MCF7 nuclear extract (A), MOLT-4 (B) and Raji (C) whole cell lysates.](image)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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