

PGF2 α R (H-55): sc-67029

BACKGROUND

Prostaglandin receptors are integral membrane proteins that bind prostaglandins with high affinity. This triggers changes in the cell which influence cell behavior. Prostaglandin receptor subtypes are named according to their relative affinities for the endogenous prostaglandins. These include prostaglandin D2 (DP receptors), prostaglandin E2 (EP1, EP2 and EP3 receptors), prostaglandin F2- α (FP receptors) and prostacyclin (IP receptors). Prostaglandin F2- α receptor (PGF2 α R) also designated prostanoid FP receptor is an integral membrane protein. It acts as a receptor for prostaglandin F2- α . The activity of PGF2 α R is mediated by G proteins that activate phosphatidylinositol-calcium second messenger system. In the corpus luteum, PGF2 α R is involved in luteolysis initiation.

REFERENCES

1. Abramovitz, M., et al. 1994. Cloning and expression of a cDNA for the human prostanoid FP receptor. *J. Biol. Chem.* 269: 2632-2636.
2. Bishop, C.V. and Stormshak, F. 2005. Nongenomic action of progesterone inhibits oxytocin-induced phosphoinositide hydrolysis and prostaglandin F2 α secretion in the ovine endometrium. *Endocrinology* 147: 937-942.
3. Sales, K.J., et al. 2005. A novel angiogenic role for prostaglandin F2 α -FP receptor interaction in human endometrial adenocarcinomas. *Cancer Res.* 65: 7707-7716.
4. Yamaji, K., et al. 2005. Prostaglandins E1 and E2, but not F2 α or latanoprost, inhibit monkey ciliary muscle contraction. *Curr. Eye Res.* 30: 661-665.
5. Camargo, P.M., et al. 2005. Prostaglandins E2 and F2 α enhance differentiation of cementoblastic cells. *J. Periodontol.* 76: 303-309.

CHROMOSOMAL LOCATION

Genetic locus: PTGFR (human) mapping to 1p31.1; Ptgr (mouse) mapping to 3 H3.

SOURCE

PGF2 α R (H-55) is a rabbit polyclonal antibody raised against amino acids 56-110 mapping near the N-terminus of PGF2 α R of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

PGF2 α R (H-55) is recommended for detection of PGF2 α R of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PGF2 α R (H-55) is also recommended for detection of PGF2 α R in additional species, including equine, canine, porcine, avian and feline.

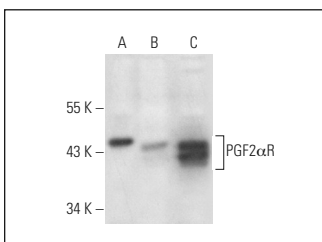
Suitable for use as control antibody for PGF2 α R siRNA (h): sc-44987, PGF2 α R siRNA (m): sc-44988, PGF2 α R shRNA Plasmid (h): sc-44987-SH, PGF2 α R shRNA Plasmid (m): sc-44988-SH, PGF2 α R shRNA (h) Lentiviral Particles: sc-44987-V and PGF2 α R shRNA (m) Lentiviral Particles: sc-44988-V.

Positive Controls: HeLa whole cell lysate: sc-2200, HT-1080 whole cell lysate: sc-364183 or PC-3 cell lysate: sc-2220.

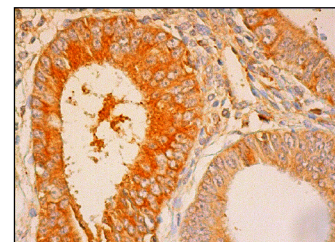
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz MarkerTM compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz MarkerTM Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruzTM Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruzTM: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



PGF2 α R (H-55): sc-67029. Western blot analysis of PGF2 α R expression in HeLa (A), HT-1080 (B) and PC-3 (C) whole cell lysates.



PGF2 α R (H-55): sc-67029. Immunoperoxidase staining of formalin fixed, paraffin-embedded human premenopausal uterus tissue showing cytoplasmic staining of glandular cells and cells in endometrial stroma.

RESEARCH USE

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