

Prostaglandin F2-alpha receptor (PF2R) Antibodies

Cat. # PF2R11-P	Mouse PF2R Control/blocking Peptides	SIZE: 100 ug
Cat. # PF2R11-S	Rabbit Anti-Mouse PF2R antiserum	SIZE: 100 ul
Cat. # PF2R11-A	Rabbit Anti-Mouse PF2R IgG # 1 (aff pure)	SIZE: 100 ug

Prostanoids are the cyclooxygenase metabolites derived from C-20 unsaturated fatty acids (arachidonic acid) and include prostaglandin (PG) D2, PGE2, PGF2 alpha, PGI2, and thromboxane (Tx) A2. Prostaglandin F(2-alpha) is involved in a number of physiologic processes. It serves as a potent luteolytic agent in many species, has been implicated as a modulator of intraocular pressure, and may be important in smooth muscle contraction in the uterus and elsewhere. Its effects on cells are mediated through specific interaction with prostaglandin receptors (PTGFRs, PTGF2-alpha or PF2R). Human PF2R is a 359-aa (calculated mo wt of ~40 Kda). It has 7 putative transmembrane domains characteristic of the G protein-coupled receptors. As expected, expression studies of the cDNA in Xenopus oocytes and COS cells showed strongest binding to PGF(2-alpha). It has been mapped to the gene to 1p31.1. PF2R knockout mice are unable to deliver normal fetuses at term due to a lack of response to oxytocin. The mice also failed to show the decline in serum progesterone expected to precede parturition. However, if the mice had their ovaries removed at day 19 of pregnancy, normal delivery occurred. Therefore, parturition may be initiated when prostaglandin F(2-alpha) interacts with its receptor in ovarian luteal cells to induce luteolysis. Rat PF2R expression has been detected in astrocytes and whole brain and pregnant ovary.

Protein name 0 day neonate head cDNA, RIKEN full-length enriched library, clone:4833409N04 product:prostaglandin F receptor, full insert sequence

Synonyms None

Gene name Name: Ptgr

Source of Antigen and Antibodies

Antigen	Mixture of 18-aa peptide (PF2R11) from CP3 of mouse PF2R (gene accession # Q9D627) and a 19-aa C-terminal (PF2R2) peptides of rat PF2R (gene accession # P43118) ; the two peptide mixture is Designated (PF2R11-P or control peptides) conjugated to KLH; Epitope location ~ . Cytoplasmic for both peptides
Ab Host/type	Rabbit, polyclonal Unpurified antiserum (cat #PF2R11-S) Aff pure IgG (cat # PF2R11-A) purified over antigen-agarose column
2-ab	Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)

100ul solution lyophilized powder

Supplied in Buffer: 0.05% azide

Reconstitute powder in 100 ul PBS

Affinity pure IgG

100 ug/100ul solution lyophilized powder

Supplied in **Buffer:** PBS+0.1% BSA

Reconstitute powder in PBS at 1 mg/ml

Control/blocking peptide

100 ug/100 ul solution lyophilized powder

Supplied in Buffer: PBS pH 7.5,

Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at -200C and powder at 4oC or -20oC..

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder

Recommended Usage

Western Blotting (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure antibody using ECL technique).

ELISA: Control peptide can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (1:10-50K for neat serum and 0.5-1 ug/ml for affinity pure).

Histochemistry & Immunofluorescence: Not tested.

Specificity & Cross-reactivity

The mouse PF2R1 peptide is 100% conserved in rat, 94% in human, 88% in sheep, ovine and bovine PF2R. Mouse PF2R2 antigenic peptide is 100% conserved in rat PF2R. It has no appreciable sequence homology with EP or other GPCR. Antibody cross-reactivity in various species is not established. The control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity

General References: 1. Sugimoto Y et al (1994) JBC 269, 1356-1360; Abramovits M et al (1994) JBC 269, 2632-2636; .

*This product is for In vitro research use only.

Related material available from ADI

Antibodies Cox 1, 2; EP1-4

PF2R11-S-A-P

70717A