

## Product datasheet for **AP01201PU-M**

### EP2 (PTGER2) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, WB
Recommended Dilution:	<b>Western Blot:</b> 1/500-1/1000. <b>Immunofluorescence:</b> 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 280-330 of Human EP2.
Specificity:	This antibody detects endogenous levels of EP2 protein. (region surrounding Gln299)
Formulation:	Phosphate buffered saline (PBS), pH~7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE) Preservative: 0.05% Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
Predicted Protein Size:	~40 kDa
Gene Name:	prostaglandin E receptor 2
Database Link:	<a href="#">Entrez Gene 5732 Human P43116</a>



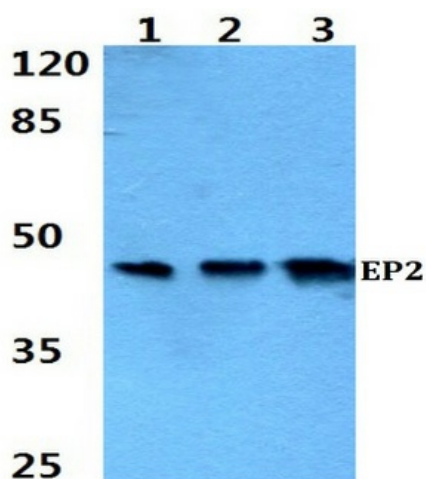
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**Background:**

Prostaglandin E2, a member of the autacoid family of lipid mediators, is a major renal cyclooxygenase product of arachidonic acid metabolism. Prostaglandin E2 binds to four G protein-coupled E-prostanoid receptors, designated EP1, EP2, EP3 and EP4. The expression and function of the prostaglandin E2 receptors have been highly characterized in kidney. EP1, which is predominantly expressed in the collecting duct, couples to Gq proteins to inhibit sodium absorption and increase in intracellular calcium, which act as second messengers. EP2 is coupled to Gs proteins, which stimulate adenylyl cyclase. EP2 has the lowest expression in kidney, but EP2 knockout mice exhibit salt-sensitive hypertension, which suggests a role for EP2 in salt excretion. EP3 is expressed in renal vessels, thick ascending limb and collecting duct. EP3 has at least 6 alternative splice variants that couple to Gi proteins to inhibit cAMP, which subsequently inhibit sodium and water transport. In uterus, EP3 induces the contraction of uterine smooth muscles. EP4 is expressed in glomerulus and collecting duct. It couples to Gs proteins, which stimulate adenylyl cyclase and regulate glomerular tone and renal renin release.

**Synonyms:**

Prostaglandin E receptor 2, Prostanoid EP2 receptor, Prostaglandin E2 receptor EP2, PGE receptor EP2, PGE2 receptor EP2 subtype, EP2

**Product images:**


Western blot analysis of EP2 Antibody at 1/500 dilution. Lane 1: A549 cell lysate. Lane 2: Mouse spleen tissue lysate. Lane 3: Rat spleen tissue lysate.