

## Product datasheet for **AP01202PU-N**

### EP4 (PTGER4) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, WB
Recommended Dilution:	<b>Western Blot</b> <b>Immunofluorescence</b>
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 350-400 of Human EP4.
Specificity:	This antibody detects endogenous levels of EP4 protein. (region surrounding His3629)
Formulation:	Phosphate buffered saline (PBS), pH~7.2 State: Aff - Purified State: Synthetic peptide EP4 (H362). (Note: the amino acid sequence is proprietary). The purity is > 98%). 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.
Gene Name:	prostaglandin E receptor 4
Database Link:	<a href="#">Entrez Gene 5734 Human P35408</a>



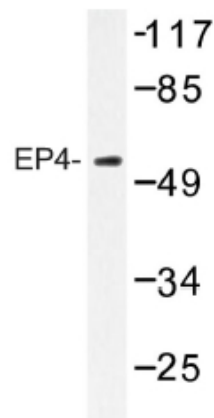
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**Background:**

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 saltsensitive hypertension, which suggests a role for EP2 in salt excretion. EP3, which is expressed in renal vessels, thick ascending limb and collecting duct, has at least six 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:**

PTGER-4, PTGER2, PTGER-2, Prostaglandin E2 receptor EP4 subtype, PGE receptor, EP4 subtype, Prostanoid EP4 receptor

**Product images:**


Western blot (WB) analysis of EP4 antibody in extracts from COLO205 cells.