

Product datasheet for **AP01424PU-M**

PTGER3 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	Western blot: 1/500-1/1000. Immunofluorescence: 1/50-1/200. Immunohistochemistry on Paraffin Sections: 1/50-1/200.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of EP3 protein. (region surrounding Arg39)
Formulation:	Phosphate buffered saline (PBS), pH~7.2 containing 0.05% Sodium Azide as preservative. State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE).
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen.
Conjugation:	Unconjugated
Storage:	Store the antibody 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 3
Database Link:	Entrez Gene 5733 Human P43115



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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.

Synonyms:

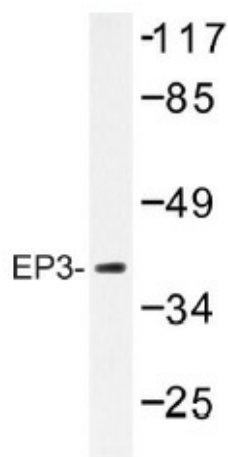
Prostaglandin E receptor 3, Prostanoid EP3 receptor, PGE2 receptor EP3 subtype, PGE2-R, PGE receptor EP3 subtype, EP3-III, EP3-II, EP3, Prostaglandin E2 receptor EP3 subtype

Protein Families:

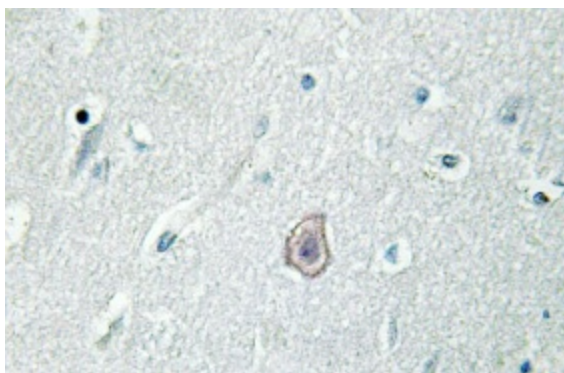
Druggable Genome, GPCR, Transcription Factors, Transmembrane

Protein Pathways:

Calcium signaling pathway, Neuroactive ligand-receptor interaction

Product images:


Western blot (WB) analysis of EP3 antibody (Cat.-No.: [AP01424PU-N]) in extracts from K562 cells.



Immunohistochemistry (IHC) analyzes of EP3 antibody (Cat.-No.: [AP01424PU-N]) in paraffin-embedded human brain tissue.