bs-4196R **[Primary Antibody]**

PTGER2 Rabbit pAb

www.bioss.com.cn
sales@bioss.com.cn
techsupport@bioss.com.cn
400-901-9800

DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 5732 **SWISS:** P43116

Target: PTGER2

Immunogen: KLH conjugated synthetic peptide derived from human Prostaglandin E Receptor EP2: 271-358/358. < Cytoplasmic >

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Prostaglandins are produced by the metabolism of arachidonic acid. Prostaglandin E2 is one of the five physiologically significant prostanoids known. Its wide spectrum of physiologic and pharmacologic effects in various tissues is mediated through binding to the Prostaglandin E2 receptors (EP1, EP2, EP3 & EP4). These include effects on the immune, endocrine, cardiovascular, renal and reproductive systems as well as smooth muscle. It is also one of the most abundant of the prostanoid family in the brain where it plays an important role in many neural functions, particularly in newborn babies, and as a mediator of inflammation. Prostaglandin E2 signals through a family of G-protein coupled receptors known as EP receptors. There are 4 subtypes of EP receptors, known as EP1, EP2, EP3 and EP4. EP2 receptors are 358 amino acid proteins with a short third intracellular loop. EP2 receptors stimulate adenylyl cyclase by their coupling to Gs and do not undergo Prostaglandin E2 induced internalization. The EP2 receptors is involved with the contration and relaxation of smooth muscle tissue. These receptors are mainly localized in lung and placental tissues and in smooth muscle.

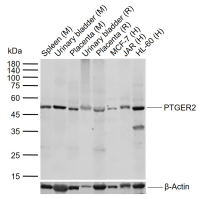
Applications: **WB** (1:500-2000)

Reactivity: Human, Mouse, Rat, Sheep (predicted: Rabbit, Pig, Cow, Dog)

Predicted MW.: 40 kDa

Subcellular Location: Cell membrane

VALIDATION IMAGES



Sample: Lane 1: Mouse Spleen tissue lysates Lane 2: Mouse Urinary bladder tissue lysates Lane 3: Mouse Placenta tissue lysates Lane 4: Rat Urinary bladder tissue lysates Lane 5: Rat Placenta tissue lysates Lane 6: Human MCF-7 cell lysates Lane 7: Human JAR cell lysates Lane 8: Human HL60 cell lysates Primary: Anti-PTGER2 (bs-4196R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 40 kDa Observed band size: 48 kDa

SELECTED CITATIONS

- **[IF=4.872]** Wu F et al. Manganese exposure caused reproductive toxicity of male mice involving activation of GnRH secretion in the hypothalamus by prostaglandin E2 receptors EP1 and EP2. Ecotoxicol Environ Saf . 2020 Sep 15;201:110712. WB ;Mouse. 32502905
- **[IF=3.23]** Takemiya et al. Microsomal Prostaglandin E Synthase-1 Facilitates an Intercellular Interaction between $CD4^+$ T Cells through IL-1β Autocrine Function in Experimental Autoimmune Encephalomyelitis. (2017) Int.J.Mol.Sci. 18 IHC ;Mouse. 29257087
- **[IF=2.6]** Ulises Cortes-Hernández. et al. Prostaglandin E2 suppresses KCNH1 gene expression and inhibits the proliferation of CaSki cervical cells through its four prostanoid PTGER subtypes. GENE. 2025 Jan;933:148997 WB ;Human. 39419236
- **[IF=1.76]** Müller, Julia J., et al. "Fetal Sheep Mesenteric Resistance Arteries: Functional and Structural Maturation." Journal of vascular research 54.5 (2017): 259-271. IHC ;="Sheep". 28810262
- **[IF=2.253]** Chen Z et al. Seasonal expressions of prostaglandin E synthases and receptors in the prostate of the wild ground squirrel (Spermophilus dauricus). Prostaglandins and Other Lipid Mediators 148 (2020) 106412. IHC ;squirrel. doi:10.1016/j.prostaglandins.2020.106412