



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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**Prostaglandin-E2 receptor EP3. Mouse Monoclonal Antibody**  
Prostaglandin E2 Receptor Subtype EP3

**BACKGROUND**

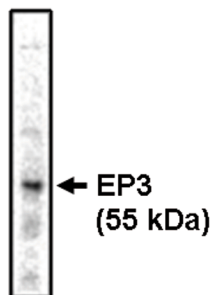
Prostaglandins (PG's) are produced by the metabolism of arachidonic acid. PGE-2 is one of the five physiologically significant prostanoids known. It's wide spectrum of physiologic and pharmacologic effects in various tissues are mediated through binding to the PGE-2 receptors (EP1, EP2, EP3 & EP4). These 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.

PGE-2 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. EP3 receptors are 365-425 amino acid proteins. There are currently 4 known isoforms of EP3 receptors named EP3A, 3B, 3C and 3D. Each of has different physiological function, but differ only in the carboxyl terminus and how they couple to their respective G-proteins. EP3 receptors are involved in water absorption, gastric acid secretion, uterine contraction, neurotransmitter release and the hydrolysis of fat cells (lipolysis). EP3 receptors also act as a mediator of neural inflammation. These receptors are mainly localized in the brain, kidney, stomach, uterus and ovaries.

**IMMUNOGEN**

Hybridoma produced by the fusion of splenocytes from mice immunized with recombinant human EP3 receptor protein and mouse myeloma cells.

Western blot analysis using EP3 antibody on bovine brain lysate at 1  $\mu$ g/ml.



**ORDERING INFORMATION**

**CATALOG NUMBER**  
X1492M

**SIZE**  
100  $\mu$ g  
**FORM**  
Unconjugated

**HOST/CLONE**  
Mouse Clone 5F5

**FORMULATION**  
Provided as solution in phosphate buffered saline with 0.08% sodium azide

**CONCENTRATION**  
See vial for concentration

**ISOTYPE**  
IgG2a

**APPLICATIONS**  
Western Blot

**SPECIES REACTIVITY**  
Rat, Bovine, Human

**ACCESSION NUMBER**

Rat	P34980
Bovine	P34979
Human	P43115

**POSITIVE CONTROL/TISSUE EXPRESSION**

Porcine brain lysate

**COMMENTS**

This antibody can be used for Western blot analysis (1-5  $\mu\text{g/ml}$ ). Optimal concentration should be evaluated by serial dilutions.

**PURIFICATION**

Protein A/G Chromatography

**SHIP CONDITIONS**

Ship at ambient temperature, freeze upon arrival

**STORAGE CUSTOMER**

Product should be stored at  $-20^{\circ}\text{C}$ . Aliquot to avoid freeze/thaw cycles

**STABILITY**

Products are stable for one year from purchase when stored properly

**REFERENCES**

1. Strong, P. et al. Prostanoid-induced inhibition of lipolysis in rat isolated adipocytes: Probable involvement of EP3 receptors. *Prostaglandins* 1992, 43, 559-566
2. Coleman, R.A., et al. Classification of prostanoid receptors: Properties, distribution and structure of the receptors and their subtypes. *Pharmacol. Rev.* 1994, 46, 205-229
3. Zeng, L., et al. Regulation of expression of matrix metalloproteinase-9 in early human T cells of the HSB.2 cultured line by the EP3 subtype of prostaglandin E2 receptor. *J. Biol. Chem.* 1996, 271, 27744-27760
4. Beiche, F., et al. Localization of cyclooxygenase-2 and prostaglandin E2 receptor EP3 in the rat lumbar spinal cord. *J. Neuroimmunol.* 1998, 89, 26-34
5. Bhattacharya, M., et al. Nuclear prostaglandin receptors. *Gene Ther. Mol. Biol.* 1999, 4, 323-338
6. Morath, R., et al. Immunolocalization of the four prostaglandin E2 receptor proteins EP1, EP2, EP3 and EP4 in human kidney. *J. Am. Soc. Nephrol.* 1999, 10, 1851-1860
7. Nakamura, K., et al. Immunohistochemical localization of prostaglandin EP3 receptor in the rat hypothalamus. *Neurosci. Lett.* 1999, 260, 117-120
8. Nakamura, K., et al. Prostaglandin EP3 receptor protein in serotonin and catecholamine cell groups: a double immunofluorescence study in the rat brain. *Neuroscience* 2001, 103, 763-775

**PRODUCT SPECIFIC REFERENCES**