



Prostaglandin E2

Data Sheet

Catalog Number:	MC11095	Product Type:	Small Molecule
Bio-Activity:	Prostaglandin E (EP) agonist	CAS #:	363-24-6
Research Categories:	Stem cells, immunology, cancer, inflammation	Chemical Name:	(5Z,11α,13E,15S)-11,15-Dihydroxy-9-oxoprostanoic acid
Solubility:	Soluble in DMSO (greater than 25 mg/ml) or in Ethanol (greater than 25 mg/ml).	Molecular Formula:	C20H32O5
Purity:	> 98%	Molecular Weight:	352.47
Format:	Powder	Ship Temp:	Refrigerated (Polar Packs)
Storage:	-20°C		

Application Notes

Description/Data:

Prostaglandin E2 (PGE2) is an endogenous prostaglandin derived from the action of cyclooxygenase on arachidonic acid. PGE2 has diverse biological actions in the areas of inflammation, cancer, immune modulation, fertility, smooth muscle relaxation and hematopoietic stem cell homeostasis. PGE2 acts through four distinct receptors: EP1, EP2, EP3, EP4.

References:

- 1) Healy (1990) Progesterone receptor antagonist and prostaglandins in human fertility regulation: a clinical review Reprod.Fertil.Dev. 2 477
- 2) Greenhough et al. (2009) The COX-2/PGE2 pathway: key roles in the hallmarks of cancer and adaptation to the tumour microenvironment Carcinogenesis 30 377
- 3) Kalinski (2012) Regulation of Immune Responses by Prostaglandin E2 J.Immunol. 188 21
- 4) North et al. (2007) Prostaglandin E2 regulates vertebrate haematopoietic stem cell homeostasis. Nature 447 1007
- 5) Hoggatt et al. (2013) Differential stem- and progenitor-cell trafficking by prostaglandin E2 Nature 495 365
- 6) Coleman et al. (1994) Classification of prostanoid receptors: Properties, distribution and structure of the receptors and their subtypes Pharmacol.Rev. 46 205

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