

## Prostaglandin E1

## Chemical Properties

CAS No. : 745-65-3

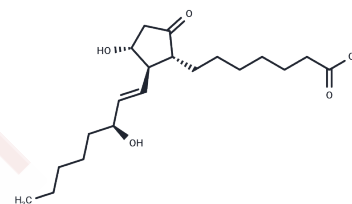
Formula: C<sub>20</sub>H<sub>34</sub>O<sub>5</sub>

Molecular Weight: 354.48

Store at low temperature

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Prostaglandin E1 (Alprostadil) is the naturally occurring prostaglandin E1 (PGE1) which displays a variety of pharmacologic actions. Prostaglandin E1 is a potent vasodilator agent that increases peripheral blood flow, inhibits platelet aggregation, and induces bronchodilation. Used in the treatment of erectile dysfunction, this agent produces corporal smooth muscle relaxation by binding to PGE receptors, resulting in the activation of adenylate cyclase and the subsequent accumulation of 3'5'-cAMP.
Targets(IC50)	Endogenous Metabolite, Prostaglandin Receptor

## Solubility Information

Solubility	DMSO: 100 mg/mL (282.1 mM) H <sub>2</sub> O: <1 mg/mL (insoluble) Ethanol: 100 mg/mL (282.1 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3 mg/mL (8.46 mM) 10% DMSO+90% PBS: 3 mg/mL (8.46 mM) <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.821 mL	14.1052 mL	28.2103 mL
5 mM	0.5642 mL	2.821 mL	5.6421 mL
10 mM	0.2821 mL	1.4105 mL	2.821 mL
50 mM	0.0564 mL	0.2821 mL	0.5642 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Dijkstra BG, et al. Invest Ophthalmol Vis Sci. 1999 Oct; 40(11):2622-6.

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Zhang T, Liu L, Huang X, et al. The rapid change of shear rate gradient is beneficial to platelet activation. Platelets. 2024, 35(1): 2288679.

Zhang Y, Zhang J X, Xiao L X, et al. The Synergistic Effect of Huangqi Gegen Decoction on Thrombosis relates to the Astragalus Polysaccharide-improved Oral Delivery of Puerarin. Journal of Ethnopharmacology. 2024: 118622.

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