

Produktinformation



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Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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Product Information



СООН

17-trifluoromethylphenyl trinor Prostaglandin $F_{2\alpha}$

Item No. 16890

CAS Registry No.:	221246-34-0	
Formal Name:	9a,11a,15S-trihydroxy-17-trifluoromethyl-	НО
	phenyl-18,19,20-trinor-prosta-5Z,13E-	
	dien-1-oic acid	
Synonym:	17-trifluoromethylphenyl trinor PGF _{2α}	
MF:	$C_{24}H_{31}O_5F_3$	
FW:	456.5	но он
Purity:	≥98%	
Stability:	≥1 year at -20°C	
Supplied as:	A solution in methyl acetate	

Laboratory Procedures

For long term storage, we suggest that 17-trifluoromethylphenyl trinor prostaglandin $F_{2\alpha}$ (17-trifluoromethylphenyl trinor $PGF_{2\alpha}$) be stored as supplied at -20°C. It should be stable for at least one year.

17-trifluoromethylphenyl trinor $PGF_{2\alpha}$ is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of 17-trifluoromethylphenyl trinor $PGF_{2\alpha}$ in these solvents is approximately 25 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of 17-trifluoromethylphenyl trinor PGF_{2π} is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 17-trifluoromethylphenyl trinor PGF_{2 α} in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

A number of 17-phenyl trinor PGF_{2 α} derivatives have been approved for the treatment of glaucoma.¹⁻⁴ Of these, the unsubstituted or meta-substituted aromatic derivatives are the most potent FP receptor agonists.⁵ 17-trifluoromethylphenyl trinor PGF_{2 α} bears an aromatic ring which is reminiscent of the trifluoromethyl-phenoxy ring of travoprost ((+)-fluprostenol isopropyl ester). As an ocular hypotensive agent, it would be expected that 17-trifluoromethylphenyl trinor PGF $_{2\alpha}$ would act very much like the free acid of travoprost. 17-phenyl trinor $PGF_{2\alpha}$ is a potent luteolytic and abortifacient, with a potency equal to or greater than fluprostenol and cloprostenol.⁵

References

- 1. Woodward, D.F., Krauss, A.H.-P., Chen, J., et al. The pharmacology of Bimatoprost (LumiganTM). Survey of Ophthalmology 45, S337-S345 (2001).
- 2. Abramovitz, M., Adam, M., Boie, Y., et al. The utilization of recombinant prostanoid receptors to determine the affinities and selectivities of prostaglandins and related analogs. Biochim. Biophys. Acta 1483, 285-293 (2000).
- 3. Sorbera, L.A. and Castañer, J. Travoprost. Drugs of the Future 25, 41-45 (2000).
- Maxey, K.M., Johnson, J., Camras, C.B., et al. The hydrolysis of bimatoprost in corneal tissue generates a potent 4. prostanoid FP receptor agonist. Survey of Ophthalmology 47(4), 34-40 (2002).
- 5. deLong, M.A., Amburgey, J., Taylor, C., et al. Synthesis and in vitro evaluation of human FP-receptor selective prostaglandin analogues. Bioorg. Medicinal Chem. Letters 10, 1519-1522 (2000).

Related Products

(+)-Fluprostenol - Item No. 16768 • 17-phenyl trinor Prostaglandin F_{2α} - Item No. 16810 • Latanoprost - Item No. 16812 • (±)-Cloprostenol - Item No. 16765 • (+)-Fluprostenol isopropyl ester - Item No. 16769 • 17-trifluoromethylphenyl-13,14-dihydro trinor Prostaglandin F₂₀ - Item No. 16895 • 17-trifluoromethylphenyl trinor Prostaglandin F_{2a} isopropyl ester - Item No. 10010062 • 17-trifluoromethylphenyl trinor Prostaglandin F_{2a} methyl ester -Item No. 10010111 • (+)-Cloprostenol methyl ester - Item No. 10010115 • (+)-Cloprostenol methyl amide - Item No. 10010495

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user <u>must</u> review the <u>complete</u> Material Safety Data Sheet, which has been sent with email the site and the safe and proper use of this material. Before use, the user <u>must</u> review the <u>complete</u> Material Safety Data Sheet, which has been sent with email to prove the safe and proper use of this material.

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