Rivenprost
Item No. 13618

CAS Registry No.: 256382-08-8
Formal Name: 4-]2R-[3R-hydroxy-2-[3S-hydroxy-4-
[3-(methoxymethyl)phenyl]-1R-buten-
1E-yl]-5-oxocyclopentyl)ethyl][hio]-
butanoic acid, methyl ester
Synonym: ONO-4819
MF: C_{25}H_{34}O_{5}
FW: 450.2
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in methyl acetate

Laboratory Procedures
For long term storage, we suggest that rivenprost be stored as supplied at -20°C. It should be stable for at least one year.
Rivenprost 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 (DMF) purged with an inert gas can be used. The solubility of rivenprost in ethanol and DMF is approximately 30 mg/ml and approximately 20 mg/ml in DMSO.
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 rivenprost is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of rivenprost in PBS, pH 7.2, is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.
Prostaglandin E2 activates four distinct G protein-coupled receptors, EP1-4. Rivenprost is a potent and selective agonist for the EP4 receptor (K_i = 0.7, 56.620, and >10,000 nM for EP1, EP3, EP2, and EP1, respectively).1 It has been used to promote EP4-mediated bone formation, prevent bone loss related to osteoporosis, drive osteoblast differentiation, and stabilize bone implants.1-5 Rivenprost has also been used to support wound healing.6

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/13618

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

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 must review the complete Safety Data Sheet, which has been sent to your institution.

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