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**Product Data Sheet**

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Product Name: Tafluprost ethyl amide

Cat. No.: GC18573

**Chemical Properties**

Cas. No. 1185851-52-8

Chemical Name N-ethyl-9 $\alpha$ ,11 $\alpha$ -dihydroxy-15,15-difluoro-16-phenoxy-17,18,19,20-tetranor-prosta-5Z,13E-dien-1-amideSMILES O[C@@H]1[C@H](C/C=C\CCCC(NCC)=O)[C@@H](/C=C/C(F)(F)COC2=CC=CC=C2)[C@H](O)C1Formula C<sub>24</sub>H<sub>33</sub>F<sub>2</sub>NO<sub>4</sub>

M.Wt 437.5

Solubility DMF: 30 mg/ml,DMSO: 30 mg/ml,Ethanol: 30 mg/ml Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Background**

Tafluprost ethyl amide is derived from 17-phenyl trinor Prostaglandin F<sub>2</sub> $\alpha$ (17-phenyl trinor PGF<sub>2</sub> $\alpha$ ). A number of 17-phenyl trinor PGF<sub>2</sub> $\alpha$  derivatives have been approved for the treatment of glaucoma. Of these, the ones wherein the 13,14-double bond has been hydrogenated retain relatively good potency, but show a significantly reduced incidence of local irritant side effects. Alternatively, it was recently reported that analogs incorporating a 15-deoxy-15,15-difluoro modification also had a favorable ophthalmic activity profile. Tafluprost is a 2-series, 16-phenoxy analog of PGF<sub>2</sub> $\alpha$  with the 15,15-difluoro substitution. As a free acid, Tafluprost is a very potent FP receptor agonist (K<sub>i</sub> = 0.4 nM). Ethyl amides of PGs tend to increase lipid solubility, to improve uptake into tissues and to further lower the effective concentration.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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