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**Product Data Sheet**

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Product Name: Tiaprost (Iliren)

Cat. No.: GC31445

**Chemical Properties**

Cas. No. 71116-82-0

SMILES O=C(O)CCC/C=C/CC1C(/C=C/C(O)COC2=CSC=C2)C(O)CC1OFormula C<sub>20</sub>H<sub>28</sub>O<sub>6</sub>S

M.Wt 396.5

Solubility DMF: 30 mg/ml, DMSO: 30 mg/ml, Ethanol: 30 mg/ml, PBS  
(pH 7.2): 2 mg/mlStorage 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 **Protocol****Animal experiment:**

Cows[1] Six healthy dairy cows of the German Black Pied breed, pregnant for 190 to 266 days, are treated initially with 0.75 mg of the PGF<sub>2</sub>α analog Tiaprost SC (treatment day=day 0). All animals are moved to the department's large animal hospital 5 to 20 days before treatment commenced; they are kept in stanchions and fed. All animals are examined clinically daily and rectally as well as vaginally at two- to six-day intervals[1].

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

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### References:

[1]. Grunert E, et al.  
Delayed termination of  
third-trimester gestations  
in dairy cows after  
treatment with the  
PGF(2alpha)analog  
Tiaprost. Theriogenology.  
1984 May;21(5):823-34.

### Background

Prostaglandin  $F_{2\alpha}$  plays a central role in luteolysis. Tiaprost is a synthetic analog of  $PGF_{2\alpha}$  that is used in veterinary medicine as an estrus-synchronizing agent.<sup>1</sup> It has also been used to treat endometritis and to induce parturition.<sup>2,3</sup>

1.Yadav, V.K., Sudhagar, R.R., and Medhamurthy, R.Apoptosis during spontaneous and prostaglandin  $F_{2\alpha}$ -induced luteal regression in the buffalo cow (*Bubalus bubalis*): Involvement of mitogen-activated protein kinases *Biol. Reprod.*67752-759(2002)  
2.Sheldon, I.M., Lewis, G.S., LeBlanc, S., et al.Defining postpartum uterine disease in cattle *Theriogenology*651516-1530(2006) 3.Holtz, W., Schmidt-Baulain, R., Meyer, H., et al.Control of prostaglandin-induced parturition in sows by injection of the  $\beta$ adrenergic blocking agent carazolol or carazolol and oxytocin *J. Anim. Sci.*683967-3971(1990)

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