Product Data Sheet

Tiaprost

Cat. No.: HY-111478 CAS No.: 71116-82-0 Molecular Formula: $C_{20}H_{28}O_{6}S$ Molecular Weight: 396.5

Target: Prostaglandin Receptor

Pathway: GPCR/G Protein

Storage: Pure form -20°C 3 years

In solvent

4°C 2 years -80°C 6 months

-20°C 1 month

BIOLOGICAL ACTIVITY

Description	Tiaprost is a prostaglandin $F_{2\alpha}$ (PGF $_{2\alpha}$) analogue.
IC ₅₀ & Target	PGF_{2lpha}
In Vivo	Plasma progesterone levels decrease sharply within 12 hours after the initial treatment with Tiaprost and within 24 hours reach levels at about 3.18 nM (1 ng/mL). Over the following days, progesterone levels remain either slightly above (cows 1, 3, 5 and 6) or below (cow 2) 3.18 nM. In cow 4, levels remain for 17 days above 3.18 nM and drop below this level thereafter. At term, all cows show the lowest recorded progesterone levels (1 to 2 nM). Repeated luteolytic treatments with Tiaprost (cows 1 and 2) or estradio1 benzoate (cow 3) has no further influence on individual progesterone levels. Treatment with progesterone-releasing intravaginal device (PRID) does not significantly elevate progesterone plasma levels. Total estrogens in plasma remained in general unchanged ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration [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 $PGF_{2\alpha}$ 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].

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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.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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