Proteins

Product Data Sheet

Carboprost tromethamine

Cat. No.: HY-A0195 CAS No.: 58551-69-2 Molecular Formula: C₂₅H₄₇NO₈ Molecular Weight: 489.64

Target: Prostaglandin Receptor

Pathway: GPCR/G Protein

Storage: 4°C, sealed storage, away from moisture

* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

H₂O: 125 mg/mL (255.29 mM; Need ultrasonic) DMSO: 100 mg/mL (204.23 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent Mass Concentration | 1 mg | 5 mg | 10 mg |
|------------------------------|-------------------------------|-----------|------------|------------|
| | 1 mM | 2.0423 mL | 10.2116 mL | 20.4232 mL |
| | 5 mM | 0.4085 mL | 2.0423 mL | 4.0846 mL |
| | 10 mM | 0.2042 mL | 1.0212 mL | 2.0423 mL |

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: PBS Solubility: 50 mg/mL (102.12 mM); Clear solution; Need ultrasonic
- 2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (5.11 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.11 mM); Clear solution
- 4. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.11 mM); Clear solution

BIOLOGICAL ACTIVITY

| Description | Carboprost tromethamine is the synthetic 15-methyl analogue of prostaglandin $F_{2\alpha}$. Carboprost tromethamine can effectively promote law contraction of the uterus and significantly reduce the amount of bleeding during and after delivery [1][2]. |
|---------------------------|--|
| IC ₅₀ & Target | FP |

In Vivo

Carboprost tromethamine has a significant effect on the prevention of postpartum hemorrhage in cesarean section, and has a significant effect on improving the state of hypercoagulable blood and maintaining the stable hemodynamic state. Carboprost tromethamine has been accounted for to be 84-96% successful in the treatment of persistent hemorrhage because of uterine atony^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Ling Z, et al. Effect of carboprost tromethamine in prevention of postpartum hemorrhage in cesarean section. Pak J Pharm Sci. 2018 Sep;31(5(Special)):2257-2262.

[2]. Bai J, et al. A comparison of oxytocin and carboprost tromethamine in the prevention of postpartum hemorrhage in high-risk patients undergoing cesarean delivery. Exp Ther Med. 2014 Jan;7(1):46-50. Epub 2013 Nov 1.

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

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