

Product Data Sheet

Product Name: Farabursen sodium

Cat. No.: GC79170

Chemical Properties

Cas. No. 2921918-19-4

Formula $C_{95}H_{107}F_3N_{32}Na_8O_{50}P_8S_8$ M.Wt 3066.4

Solubility Storage Store at -20°C, away from moisture

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

Farabursen sodium (RGLS8429 sodium; RG1015 sodium) is a miR-17 inhibitor. Farabursen sodium inhibits the function of the miR-17 family, relieves the inhibitory effect on miR-17 target genes including PKD1 and PKD2, and increases the level of PC1/2. Farabursen sodium slows the growth of renal cysts, reduces the ratio of kidney weight to body weight, and decreases the cyst index and proliferation index. Farabursen sodium is applicable to research related to autosomal dominant polycystic kidney disease [1] [2].

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

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In Vivo, Farabursen sodium (20 mg/kg, s.c., administered on postnatal days 8, 10, 12, and 15) significantly inhibits renal cyst growth and cell proliferation, and improves renal function in Pkd1F/RC ADPKD mice^[2]. Farabursen sodium (0-300 mg/kg; s.c.; single dose) achieves sustained target binding to miR-17 in the kidneys of C57BL/6 mice (inhibition rate $\geq 75\%$, duration ≥ 14 days), and also achieves this effect in the liver (inhibition rate $\geq 75\%$, duration ≥ 7 days), with an EC₇₅ of 2.2 $\mu\text{g/g}$ in renal tissues^[2].

In Vitro, Farabursen (sodium) (0.1-100 nM; 24 h) potently de-represses miR-17 activity in HeLa cells, with an EC₅₀ of 22.40 nM after 24 h of incubation^[2]. Farabursen (sodium) (0.1-100 nM; 24 h) de-represses PKD1-3'UTR activity in HeLa cells, with an EC₅₀ of 43.54 nM after 24 h of incubation^[2]. Farabursen (sodium) (0.1-100 nM; 24 h) de-represses PKD2-3'UTR activity in HeLa cells, with an EC₅₀ of 40.76 nM after 24 h of incubation^[2]. Farabursen (sodium) (120 nM) reduces 3D cyst size in primary human ADPKD cyst cells when transfected at 120 nM^[2].

References:

- [1]. Yu, Alan S.L.1, et al. Farabursen Increases Urinary Polycystin-1 and Polycystin-2 and Reduces Height-Adjusted Total Kidney Volume Growth in Patients with ADPKD: SA-OR089. Journal of the American Society of Nephrology 36(10S):10.1681/ASN.202527ntvtc3IF: 9.4 Q1, October 2025.
- [2]. Valencia T, et al. The nucleobase guanine at the 3'-terminus of oligonucleotide RGLS4326 drives off-target AMPAR inhibition and CNS toxicity. Nat Commun. 2025;16(1):10762. Published 2025 Nov 28.

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