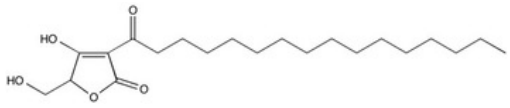
Tribioscience

RK-682 (+/-), Tyrosine phosphatase inhibitor

Catalog	Unit
TBI4300-200UG	200 ug
TBI4300-1MG	1 mg

Product Details



Formal Name: 3-Hexadecanoyl-5-hydroxymethyltetronic acid
Molecular Formula: $C_{21}H_{36}O_5$
Formula Weight: 368.52
CAS Number: 154639-24-4
Purity: >98%
Formulation: powder
Solubility: Soluble in DMSO (up to 25 mg/ml) or in Ethanol (up to 10 mg/ml).
Storage: -20°C
Stability: ≥ 1 year.

Applications

Tyrosine phosphatase inhibitor

Functions

RK-682 is a protein tyrosine phosphatase inhibitor (IC50's = 54 µM for CD45, 2.0 µM for VHR; did not inhibit cdc25B) originally isolated from the fermentation of Streptomyces sp. 88-682. Inhibits cell cycle at G1/S. RK-682 has also been shown to inhibit PLA2 (IC50 = 16 µM), HIV-1 protease (IC50 = 84 µM), and heparanase (IC50 = 17 µM). Natural RK-682 (R-isomer) and synthetic racemic material have identical phosphatase activity. Care should be taken when using RK-682 in the presence of metal salts – RK-682 readily forms metal complexes that affects its phosphatase inhibitory activity. RK-682 has been identified as a potential promiscuous inhibitor.

Application Procedures

First dissolved in DMSO (up to 25 mg/ml) or in Ethanol (up to 10 mg/ml), then diluted to aqueous buffer. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

For research use only.