Product Data Sheet

Product Name: Furegrelate (sodium salt)
Cat. No.: GC13536

Chemical Properties

Cas. No.	85666-17-7		
Chemical Name	5-(3-pyridinylmethyl)-2-benzofurancarboxylic acid, sodium salt		
SMILES	O=C(C1=CC2=C(O1)C=CC(CC3=CN=CC=C3)=C2)[O-].[Na+]		
Formula	$C_{15}H_{10}NO_3$ • Na	M.Wt	275.2
Solubility	≤15mg/ml in Water	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	Furegrelate (sodium salt)		

Background

Furegrelate (sodium salt) is a potent inhibitor of thromboxane synthase [1][2].

Thromboxane A synthase 1 (platelet, cytochrome P450, family 5, subfamily A) is a cytochrome P450 enzyme that catalyzes the conversion of prostaglandin H2 to thromboxane A2. Thromboxanes play an important role in vasoconstriction and platelet aggregation.

Furegrelate (sodium salt), also known as sodium 5-(3'-pyridinylmethyl)benzofuran-2-carboxylate (U-63557A), is a potent, specific and orally available thromboxane synthase inhibitor. U-63557A is a potent inhibitor of the thromboxane synthase in human platelets in vitro, as well as in rhesus monkey platelets ex vivo. U-63557A didn’t inhibit thrombin-stimulated PGI2 biosynthesis in human endothelial cells, the 5-lipoxygenase in human neutrophils, or the cyclooxygenase in a variety of test systems [2].

In rhesus monkeys, U-63557A inhibited the platelet thromboxane synthase by

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approximately 80% for at least 12 hrs. In anesthetized dogs, U-63557A inhibited the blockage of stenosed coronary arteries caused platelet aggregation. While the protective effects of U-63557A could be reversed by cyclooxygenase inhibitors. U-63557A is a promising compound for the evaluation of the role of thromboxane synthase in a variety of pathophysiological states [2].

References:

[1]. Johnson RA, Nidy EG, Aiken JW, et al. Thromboxane A2 synthase inhibitors. 5-(3-Pyridylmethyl)benzofuran-2-carboxylic acids. J Med Chem. 1986 Aug;29(8):1461-8.
[2]. Gorman RR, Johnson RA, Spilman CH, et al. Inhibition of platelet thromboxane A2 synthase activity by sodium 5-(3'-pyridinylmethyl)benzofuran-2-carboxylate. Prostaglandins. 1983 Aug;26(2):325-42.