
Product Data Sheet

Product Name: Ro-15-2041

Cat. No.: GC32555

Chemical Properties

Cas. No. 77448-87-4

SMILES O=C1N=C2NC3=C(C(C)=C(Br)C=C3)CN2C1CFormula $C_{12}H_{12}BrN_3O$ M.Wt 294.15

Solubility Soluble in DMSO Storage Store at -20°C

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**

Ro 15-2041 is a selective platelet phosphodiesterase inhibitor with antithrombotic properties.

Ro 15-2041 inhibits platelet aggregation induced by all common platelet agonists in platelet-rich plasma obtained from various species including man ($IC_{50}=1-3 \mu M$). Ro 15-2041 potentiates platelet inhibition by prostacyclin, the prostacyclin-induced increase of intraplatelet cyclic (c) AMP levels and inhibits the collagen-induced release of serotonin and beta-thromboglobulin. Ro 15-2041 reduces the increase and accelerated the normalization of cytosolic free Ca^{2+} in thrombin-stimulated human platelets. Ro 15-2041 is a potent ($IC_{50}=70 \text{ nM}$) and selective inhibitor of platelet cAMP-phosphodiesterase activity. Whereas Ro 15-2041 causes complete inhibition of cAMP-phosphodiesterase activity in human platelet supernatants, breakdown of cAMP in cardiac homogenates is depressed to maximally 50%. In human brain and rabbit uterus Ro 15-2041 is at least 1000 times less potent. By comparison, papaverine fully inhibits phosphodiesterase activity in all four tissues with similar IC_{50} values of about $5 \mu M$. Furthermore, Ro 15-2041 selectively inhibits cAMP-phosphodiesterase activity of a bovine calmodulin-independent but not of a calmodulin-dependent enzyme

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

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preparation[1].

[1]. Muggli R, et al. 7-Bromo-1,5-dihydro-3,6-dimethylimidazo[2,1-b]quinazolin-2(3H)-one (Ro 15-2041), a potent antithrombotic agent that selectively inhibits platelet cyclic AMP-phosphodiesterase. J Pharmacol Exp Ther. 1985 Oct;235(1):212-9.

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