Product Data Sheet

Product Name: ONO-RS-082
Cat. No.: GC14521

Chemical Properties

Cas. No.	99754-06-0		
Chemical Name	4-chloro-2-[[(2E)-1-oxo-3-(4-pentylphenyl)-2-propen-1-yl]amino]-benzoic acid		
SMILES	ClC1=CC(NC(/C=C/C2=CC=C(CCCCC)C=C2)=O)=C(C(O)=O)C=C1		
Formula	$C_{21}H_{22}ClNO_3$	M.Wt	371.9
Solubility	≤33mg/ml in DMSO;33mg/ml in dimethyl formamide	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	ONO-RS-082		

Background

ONO-RS-082 is a reversible inhibitor of Ca2+-independent phospholipase A2.

Phospholipases A2 (PLA2s) are enzymes releasing fatty acids from the second carbon group of glycerol. This particular phospholipase can specifically recognize the sn-2 acyl bond of phospholipids and can catalytically hydrolyze the bond releasing arachidonic acid and lysophosphatidic acid..

In vitro: Previous study found that human platelets stimulated by epinephrine led to enhanced turnover of phosphatidylinositol 4,5-bisphosphate, accumulated inositol trisphosphate, diacylglycerol, and phosphatidic acid, indicating stimulation of phospholipase C. It was shown that these responses could be completely blocked by inhibitors of alpha 2-adrenergic receptors including ONO-RS-082 or removal of fibrinogen. In addition, epinephrine could evoked an increased turnover of ester-linked arachidonic acid in aspirin treated platelets that was inhibited by ONO-RS-082 or the absence of fibrinogen. Moreover, it was found that ONO-RS-082 at 3.5 μM was able to

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inhibit epinephrine-stimulated thromboxane production in human platelets. ONO-RS-082 could also disrupt endosome tubule formation and maintenance of the Golgi complex [1].

In vivo: Up to now, there is no animal in vivo data reported.

Clinical trial: So far, no clinical study has been conducted.

Reference:
[1] Banga, H. S.,Simons, E.R.,Brass, L.F., et al. Activation of phospholipases A and C in human platelets exposed to epinephrine: Role of glycoproteins IIb/IIIa and dual role of epinephrine. Proc. Natl. Acad. Sci. USA 83(23), 9197-9201 (1986).