Product Data Sheet

Product Name: Fructose 2,6-biphosphate sodium salt
Cat. No.: GC36084

Chemical Properties

Cas. No.	84364-89-6		
SMILES	OC[C@]1(OP(O)(O)=O)[C@@H](O)[C@H](O)[C@@H](COP(O)(O)=O)O1.[x Na]		
Formula	$C_6H_{14}O_{12}P_2.xNa$	M.Wt	
Solubility	Soluble in DMSO	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			

Background

Fructose 2,6-biphosphate sodium salt is a potent stimulator of 6-Phosphofructo-1-kinase (PFK-1) and also inhibits Fructose-1,6-Bisphosphatase[1]. PFK-1, Fructose-1,6-Bisphosphatase[1]

A concentration-dependent inhibition of fructose-1,6-Bisphosphatase by Fructose 2,6-bisphosphate is observed. Another characteristic of this inhibition is that it changes the saturation curve from hyperbolic to sigmoidal. This effect is clearly apparent at 25 pM Fructose 2,6-bisphosphate. It appears that the inhibitory actions of Fructose 2,6-bisphosphate and of AMP are synergistic. Indeed, at 10 pM fructose 1,6-bisphosphate, the addition of AMP alone causes a 35% inhibition but, it increases the inhibition by 1 pM Fructose 2,6-bisphosphate from 20% to 80%[1].

[1]. Van Schaftingen E, et al. Inhibition of fructose-1,6-bisphosphatase by fructose 2,6-biphosphate. Proc Natl Acad Sci U S A. 1981 May;78(5):2861-3.

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