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## Product Data Sheet

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Product Name: Fructose 2,6-biphosphate

Cat. No.: GC36083

**Chemical Properties**

Cas. No. 79082-92-1

SMILES OC[C@]1(OP(O)(O)=O)[C@@H](O)[C@H](O)[C@@H](COP(O)(O)=O)O1Formula  $C_6H_{14}O_{12}P_2$  M.Wt 340.12

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**

Fructose 2,6-bisphosphate is a potent stimulator of 6-Phosphofructo-1-kinase (PFK-1) and also inhibits Fructose-1,6-Bisphosphatase. 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-bisphosphate. Proc Natl Acad Sci U S A. 1981 May;78(5):2861-3.

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

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