Product Data Sheet

Product Name: Dihydroxyacetone phosphate
Cat. No.: GC35865

Chemical Properties

Cas. No.	57-04-5		
SMILES	O=C(COP(O)(O)=O)CO		
Formula	$C_3H_7O_6P$	M.Wt	170.06
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	Dihydroxyacetone phosphate		

Background

Dihydroxyacetone phosphate is a precursor in the biosynthesis of glycerolipids.[1] It is produced by the glycolytic enzyme fructose-1,6-bisphosphate aldolase or by isomerization of glyceraldehyde-3-phosphate by triosephosphate isomerase.[2] Erythrocyte levels of dihydroxyacetone phosphate are increased in patients with triosephosphate isomerase deficiency, an inborn error of metabolism characterized by hemolytic anemia and progressive neurological dysfunction.[3]

1.Dodds, P.F., Gurr, M.I., and Brindley, D.N.The glycerol phosphate, dihydroxyacetone phosphate and monoacylglycerol pathways of glycerolipid synthesis in rat adipose-tissue homogenatesBiochem J.160(3)693-700(1976) 2.Miyazawa, H., Yamaguchi, Y., Sugiura, Y., et al.Rewiring of embryonic glucose metabolism via suppression of PFK-1 and aldolase during mouse chorioallantoic branchingDevelopment144(1)63-73(2017) 3.Orosz, F., Vértessy, B.G., Hollán, S., et al.Triosephosphate isomerase deficiency: Predictions and factsJ. Theor. Biol.182(3)437-447(1996)

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