

Product Data Sheet

Product Name: 6-Phosphogluconic acid trisodium

Cat. No.: GC65015

Chemical Properties

Cas. No. 53411-70-4

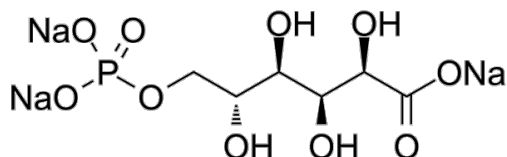
Formula C₆H₁₀Na₃O₁₀P M.Wt 342.08

Solubility H₂O : 125 mg/mL (365.41 mM; Need ultrasonic) Storage 4°C, protect from light

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

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

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6-Phosphogluconic acid trisodium is a potent and competitive phosphoglucose isomerase (PGI) inhibitor with K_{is} of 48 μ M for glucose 6-phosphate and 42 μ M for fructose 6-phosphate. 6-Phosphogluconic acid trisodium is an endogenous metabolite[1][2].

6-Phosphogluconic acid trisodium (0.5-2.0 mM) completely inhibits the activity of PGI with glucose 6-phosphate (0.05- 0.5 mM) as the substrate[1].

[1]. Gaitonde MK, et al. Effect of 6-phosphogluconate on phosphoglucose isomerase in rat brain in vitro and in vivo. J Neurochem. 1989 May;52(5):1348-52.

[2]. Hitosugi T, et al. Phosphoglycerate mutase 1 coordinates glycolysis and biosynthesis to promote tumor growth. Cancer Cell. 2012 Nov 13;22(5):585-600.

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