# 6-Phosphogluconic acid trisodium

Cat. No.: HY-W011184 CAS No.: 53411-70-4 Molecular Formula: C<sub>6</sub>H<sub>10</sub>Na<sub>3</sub>O<sub>10</sub>P

Molecular Weight: 342

Target: **Endogenous Metabolite** Pathway: Metabolic Enzyme/Protease

Storage: 4°C, sealed storage, away from moisture and light

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture

and light)

**Product** Data Sheet

## **SOLVENT & SOLUBILITY**

In Vitro

H<sub>2</sub>O: 125 mg/mL (365.50 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.9240 mL	14.6199 mL	29.2398 mL
	5 mM	0.5848 mL	2.9240 mL	5.8480 mL
	10 mM	0.2924 mL	1.4620 mL	2.9240 mL

Please refer to the solubility information to select the appropriate solvent.

### **BIOLOGICAL ACTIVITY**

Description	6-Phosphogluconic acid trisodium is a potent and competitive phosphoglucose isomerase (PGI) inhibitor with $K_i$ s of 48 $\mu$ M for glucose 6-phosphate and 42 $\mu$ M for fructose 6-phosphate. 6-Phosphogluconic acid trisodium is an endogenous metabolite <sup>[1][2]</sup> .
IC <sub>50</sub> & Target	${\sf phosphoglucose}\ {\sf isomerase}^{[1]}$
In Vitro	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 <sup>[1]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### **REFERENCES**

[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. Phosphogly	vcerate mutase 1 coordinates glyco	olysis and biosynthesis to prom	note tumor growth. Cancer Cell. 2012	2 Nov 13;22(5):585-600.
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