

## Thiamine pyrophosphate tetrahydrate

## Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

## Biological Description

Description	Thiamine pyrophosphate tetrahydrate is the coenzyme form of vitamin B1 and acts as a crucial intermediate in the pyruvate dehydrogenase complex and alpha-ketoglutarate dehydrogenase complex. It functions as a cofactor for $\alpha$ -keto acid dehydrogenases, which are essential for oxidative phosphorylation and the pentose phosphate pathway.
Targets(IC50)	Endogenous Metabolite
In vivo	Thiamine pyrophosphate (25 mg/kg, intraperitoneal injection) tetrahydrate inhibits oxidative damage induced by ischemia-reperfusion in rat ovarian tissue. Additionally, thiamine pyrophosphate (20 mg/kg, intraperitoneal injection, once daily for 14 days) tetrahydrate prevents cisplatin-induced cardiotoxicity in rats, as well as the associated oxidative stress and cardiac injury.

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