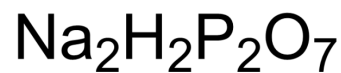


## Sodium pyrophosphate

<b>Cat. No.:</b>	HY-W105970
<b>CAS No.:</b>	7758-16-9
<b>Molecular Formula:</b>	H <sub>2</sub> Na <sub>2</sub> O <sub>7</sub> P <sub>2</sub>
<b>Molecular Weight:</b>	221.94
<b>Target:</b>	Biochemical Assay Reagents
<b>Pathway:</b>	Others
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 100 mg/mL (450.57 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	4.5057 mL	22.5286 mL	45.0572 mL
	5 mM	0.9011 mL	4.5057 mL	9.0114 mL
	10 mM	0.4506 mL	2.2529 mL	4.5057 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Sodium pyrophosphate (Disodium pyrophosphate), a food additive, is an inorganic compound. Sodium pyrophosphate has potential hematotoxic and immunotoxic effects<sup>[1]</sup>.

#### In Vivo

Disodium pyrophosphate (oral administration, 12.6 mg/kg) displays hematotoxic and immunotoxic effects with long-term exposure in rats<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Adult Sprague-Dawley rats <sup>[1]</sup>
Dosage:	12.6 mg/kg
Administration:	Oral administration
Result:	Displayed significant leukopenic condition. Decreased in CD3 T-lymphocyte and CD20 Blymphocyte immunolabeling in rats. Downregulated of PPAR-α and PPAR-γ together with upregulation of TNF-α.

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## REFERENCES

[1]. Yasmina M Abd-Elhakim, et al. Effects of the food additives sodium acid pyrophosphate, sodium acetate, and citric acid on hemato-immunological pathological biomarkers in rats: Relation to PPAR- $\alpha$ , PPAR- $\gamma$  and tnfa signaling pathway. Environ Toxicol Pharmacol. 2018 Sep;62:98-106.

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

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