Sodium pyrophosphate

Cat. No.: HY-W105970

CAS No.: 7758-16-9

Molecular Formula: $H_2Na_2O_7P_2$

Molecular Weight: 221.94

Target: Biochemical Assay Reagents

Pathway: Others

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

$Na_2H_2P_2O_7$

SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (450.57 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	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[1].

In Vivo

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

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

Animal Model:	Adult Sprague-Dawley rats[1]
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.

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-α, PPAR-γ and tnfα signaling pathway. Environ Toxicol Pharmacol. 2018 Sep;62:98-106.

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