Sodium 4-pentynoate

Cat. No.: HY-15286

CAS No.: 101917-30-0

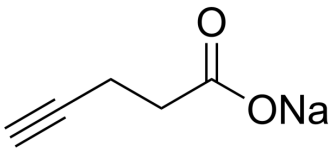
Molecular Formula: $C_5H_5NaO_2$

Molecular Weight: 120.08

Target: Others

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)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (832.78 mM; Need ultrasonic)
DMSO : 16.67 mg/mL (138.82 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	8.3278 mL	41.6389 mL	83.2778 mL
5 mM	1.6656 mL	8.3278 mL	16.6556 mL
10 mM	0.8328 mL	4.1639 mL	8.3278 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 150 mg/mL (1249.17 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 1.67 mg/mL (13.91 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1.67 mg/mL (13.91 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.67 mg/mL (13.91 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Sodium 4-pentynoate is a alkynylacetate analogue, can be metabolically incorporated onto cellular proteins through biosynthetic mechanisms for profiling of acetylated proteins in diverse cell types[1]. Sodium 4-pentynoate is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAc) with molecules containing Azide groups.

In Vitro

Sodium 4-pentynoate (0.01-10 mM; 0.5-8 h) is used to dose- and time-dependent metabolic labeling in Jurkat T cells[1].

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

REFERENCES

[1]. Yang YY, et al. Bioorthogonal chemical reporters for monitoring protein acetylation. J Am Chem Soc. 2010 Mar 24;132(11):3640-1.

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