# Pyruvic acid

**Cat. No.:** HY-Y0781

**CAS No.:** 127-17-3

**Molecular Formula:** $C_3H_4O_3$

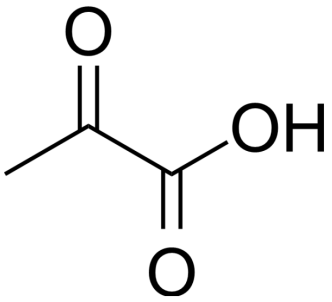
**Molecular Weight:** 88.06

**Target:** Endogenous Metabolite

**Pathway:** Metabolic Enzyme/Protease

**Storage:** 4°C, stored under nitrogen

* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)




## SOLVENT & SOLUBILITY

**In Vitro**

$H_2O$ : 100 mg/mL (1135.59 mM; Need ultrasonic)

DMSO : ≥ 50 mg/mL (567.79 mM)

* "≥" means soluble, but saturation unknown.

| Preparing Stock Solutions | Concentration / Solvent / Mass | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 11.3559 mL | 56.7795 mL | 113.5589 mL |
| | 5 mM | 2.2712 mL | 11.3559 mL | 22.7118 mL |
| | 10 mM | 1.1356 mL | 5.6779 mL | 11.3559 mL |

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

**In Vivo**

1. Add each solvent one by one: PBS
   Solubility: 100 mg/mL (1135.59 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.63 mg/mL (29.87 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (28.39 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (28.39 mM); Clear solution

## BIOLOGICAL ACTIVITY

| | | |
|---|---|---|
| **Description** | Pyruvic acid is an intermediate metabolite in the metabolism of carbohydrates, proteins, and fats. | |
| **$IC_{50}$ & Target** | Microbial Metabolite | Human Endogenous Metabolite |

## CUSTOMER VALIDATION

- Cell Death Dis. 2023 Apr 6;14(4):246.
- Cell Prolif. 2023 Apr 21;e13442.
- Int Immunopharmacol. 2023 May 12;120:110292.

See more customer validations on www.MedChemExpress.com

## REFERENCES

[1]. Kładna A, et al. Reactivity of pyruvic acid and its derivatives towards reactive oxygen species. Luminescence. 2015 Nov;30(7):1153-8.



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