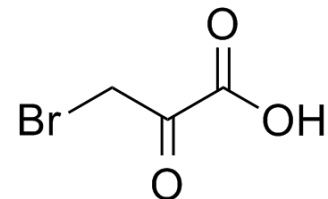


3-Bromopyruvic acid

Cat. No.:	HY-19992		
CAS No.:	1113-59-3		
Molecular Formula:	C ₃ H ₃ BrO ₃		
Molecular Weight:	166.96		
Target:	Hexokinase		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : ≥ 32 mg/mL (191.66 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
	Concentration				
	1 mM		5.9895 mL	29.9473 mL	59.8946 mL
	5 mM		1.1979 mL	5.9895 mL	11.9789 mL
	10 mM		0.5989 mL	2.9947 mL	5.9895 mL

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

BIOLOGICAL ACTIVITY

Description

3-Bromopyruvic acid is a hexokinase II inhibitor, is an effective antitumor agent on the hepatoma cells. Target: hexokinase II in vitro: 3-BrPA dissociates HK II from this complex, causing cell death, and thus, having an anti-tumor effect. In vitro treatment of cells with 3-BrPA significantly inhibited their growth, as evaluated by MTT assay and adenosine triphosphate-tumor chemosensitivity assay (ATP-TCA). [1] 3-Bromopyruvic acid (3-BP) is a glycolytic inhibitor and a promising anticancer compound, induces oxidative stress and depletes cells of glutathione (GSH). [2] in vivo: 3-BrPA treatment (50 mg/kg ip. daily, 6 days/week for three weeks) is effective in the animal model by attenuating tumor growth and causing tumor necrosis. Toxic signs were not observed. The acute toxicity study provided an LD50 of 191.7 mg/kg for 3-BrPA. [1]

CUSTOMER VALIDATION

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- Exp Cell Res. 2020 Jan 25:111876.

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REFERENCES

- [1]. Gong L, et al. 3-Bromopyruvic acid, a hexokinase II inhibitor, is an effective antitumor agent on the hepatoma cells : in vitro and in vivo findings. Anticancer Agents Med Chem. 2014 Jun;14(5):771-6.
- [2]. Sadowska-Bartos I, et al. Anticancer agent 3-bromopyruvic acid forms a conjugate with glutathione. Pharmacol Rep. 2016 Apr;68(2):502-5.
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Caution: Product has not been fully validated for medical applications. For research use only.

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