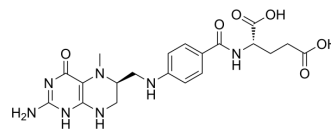


## Levomefolic acid

<b>Cat. No.:</b>	HY-14781		
<b>CAS No.:</b>	31690-09-2		
<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>25</sub> N <sub>7</sub> O <sub>6</sub>		
<b>Molecular Weight:</b>	459.46		
<b>Target:</b>	Endogenous Metabolite; Reactive Oxygen Species; DNA/RNA Synthesis		
<b>Pathway:</b>	Metabolic Enzyme/Protease; Immunology/Inflammation; NF-κB; Cell Cycle/DNA Damage		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 2.08 mg/mL (4.53 mM; ultrasonic and warming and heat to 60°C)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.1765 mL	10.8823 mL	21.7647 mL
5 mM	---	---	---
10 mM	---	---	---

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

### BIOLOGICAL ACTIVITY

#### Description

Levomefolic acid (5-MTHF) is an orally active, brain-penetrant natural active form of folic acid and is one of the most widely used folic acid food supplements<sup>[1][2]</sup>.

#### In Vitro

Levomefolic acid (5-MTHF) shows interaction with residues Glu406, Ile 418, Lys417 and Tyr453, of which Lys 417 and Tyr 453 play a strong physiological role in the interaction between S1 and ACE and may act as a potential inhibitor of the S1:ACE2 interaction of the SARS-CoV-2 virus<sup>[1]</sup>.

Levomefolic acid (5-MTHF) (50 nM, 72 h) increases intracellular folate metabolite activity by 7-fold better than folic acid by 2-fold in human lymphoblastoid cell line (LCL), and is a good folic acid supplement<sup>[2]</sup>.

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

### CUSTOMER VALIDATION

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- J Mol Med (Berl). 2019 Aug;97(8):1183-1193.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

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- [1]. Manisha Prajapat, et al. Virtual screening and molecular dynamics study of approved drugs as inhibitors of spike protein S1 domain and ACE2 interaction in SARS-CoV-2. J Mol Graph Model. 2020 Dec;101:107716.
- [2]. Maša Vidmar Golja, et al. Simultaneous quantification of intracellular concentrations of clinically important metabolites of folate-homocysteine cycle by LC-MS/MS. Anal Biochem. 2020 Sep 15;605:113830.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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