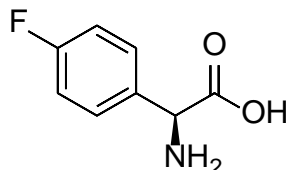


# Product data sheet



MedKoo Cat#: 564895 Name: L-4FPG CAS#: 19883-57-9 Chemical Formula: C <sub>8</sub> H <sub>8</sub> FNO <sub>2</sub> Exact Mass: 169.0539 Molecular Weight: 169.16	
Product supplied as: Powder	
Purity (by HPLC): ≥ 98%	
Shipping conditions: Ambient temperature	
Storage conditions: Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.	

## 1. Product description:

L-4FPG is an inhibitor of the neutral amino acid transporters ASCT1 and ASCT2. L-4FPG shows good brain penetration and potently reduces amphetamine-induced hyperlocomotion.

## 2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

## 3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	5.91 mL	29.56 mL	59.12 mL
5 mM	1.18 mL	5.91 mL	11.82 mL
10 mM	0.59 mL	2.96 mL	5.91 mL
50 mM	0.12 mL	0.59 mL	1.18 mL

## 5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

## 6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

TBD

In vivo study

1. Li YX, Yang JY, Alcantara M, Abelian G, Kulkarni A, Staubli U, Foster AC. Inhibitors of the Neutral Amino Acid Transporters ASCT1 and ASCT2 Are Effective in In Vivo Models of Schizophrenia and Visual Dysfunction. *J Pharmacol Exp Ther*. 2018 Nov;367(2):292-301. doi: 10.1124/jpet.118.251116. Epub 2018 Aug 31. PMID: 30171039.

## 7. Bioactivity

Biological target: L-4FPG is an inhibitor of the neutral amino acid transporters ASCT1 and ASCT2.

In vitro activity

TBD

In vivo activity

L-4FPG was tested for its effects on amphetamine-induced hyperlocomotion in a mouse model of schizophrenia. For L-4FPG (Fig. 3), a dose-dependent reduction was observed (overall treatment effect was significant by one-way ANOVA,  $F(4,34) = 3.07$ ;  $P = 0.03$ )

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with a lowest effective dose for L-4FPG of 0.3 mg/kg (post hoc Dunnett's test,  $P = 0.023$ ); at 3 mg/kg the effect was not significant, indicating that a U-shaped dose-response relationship exists.

Reference: J Pharmacol Exp Ther. 2018 Nov;367(2):292-301. <https://jpet.aspetjournals.org/content/367/2/292.long>

*Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.*