

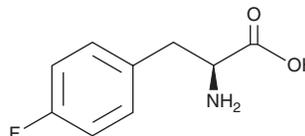
# PRODUCT INFORMATION



## 4-Fluoro-L-phenylalanine

Item No. 29178

CAS Registry No.: 1132-68-9  
Synonyms: 4F-Phe, L-*para*-Fluorophenylalanine,  
*para*-Fluoro-L-phenylalanine  
MF: C<sub>9</sub>H<sub>10</sub>FNO<sub>2</sub>  
FW: 183.2  
Purity: ≥98%  
Supplied as: A crystalline solid  
Storage: -20°C  
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

4-Fluoro-L-phenylalanine is supplied as a crystalline solid. Aqueous solutions of 4-fluoro-L-phenylalanine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 4-fluoro-L-phenylalanine in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

4-Fluoro-L-phenylalanine is a non-proteinogenic amino acid and an inhibitor of protein synthesis.<sup>1,2</sup> It inhibits growth of MCF-7 breast cancer cells (IC<sub>50</sub> = 11.8 μM).<sup>1</sup> 4-Fluoro-L-phenylalanine reversibly inhibits stomatin-induced *T. vorax* macrostomal differentiation in a concentration-dependent manner.<sup>2</sup> It has been used to replace phenylalanine residues in polypeptides for determining site-specific solvent accessibility by <sup>19</sup>F-NMR.<sup>3</sup>

### References

1. Giese, C., Lepthien, S., Metzner, L., *et al.* Intracellular uptake and inhibitory activity of aromatic fluorinated amino acids in human breast cancer cells. *Chem. Med. Chem.* **3**(9), 1449-1456 (2008).
2. Sharpe, M., Reyes, J.F., Verma, M., *et al.* The effect of p-fluoro-phenylalanine on differentiation of the macrostomal form of the polymorphic ciliate, *Tetrahymena vorax*. *Transactions of the Illinois State Academy of Science* **97**(1), 33-44 (2004).
3. Hou, Y., Hu, W., Li, X., *et al.* Solvent-accessibility of discrete residue positions in the polypeptide hormone glucagon by <sup>19</sup>F-NMR observation of 4-fluorophenylalanine. *J. Biomol. NMR* **68**(1), 1-6 (2017).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897  
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM