

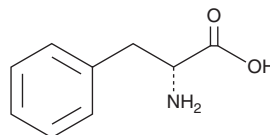
# PRODUCT INFORMATION



## D-Phenylalanine

Item No. 31194

CAS Registry No.: 673-06-3  
Synonyms: D-(+)-Phenylalanine, (R)-Phenylalanine  
MF:  $C_9H_{11}NO_2$   
FW: 165.2  
Purity:  $\geq 98\%$   
Supplied as: A solid  
Storage:  $-20^{\circ}C$   
Stability:  $\geq 4$  years



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

### Laboratory Procedures

D-Phenylalanine is supplied as a solid. D-Phenylalanine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, D-phenylalanine should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. D-Phenylalanine has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

D-Phenylalanine is an enantiomer of the essential amino acid L-phenylalanine and has analgesic activity.<sup>1,2</sup> *In vivo*, D-phenylalanine (125 mg/kg) increases the latency to paw licking in a hot plate test in mice, an effect that can be reversed by naloxone.<sup>1</sup> It also enhances acupuncture-induced analgesia in rabbits.<sup>2</sup>

### References

1. Cheng, R.S.S. and Pomeranz, B. Correlation of genetic differences in endorphin systems with analgesic effects of D-amino acids in mice. *Brain Res.* **177**(3), 583-587 (1979).
2. Han, J., Zhang, Y., Tang, J., *et al.* Augmentation of acupuncture analgesia by peptidase inhibitor D-phenylalanine in rabbits. *Acta Zool. Sin.* (1981).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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