

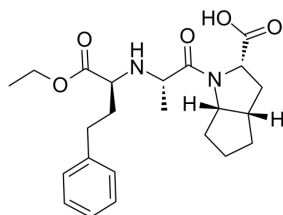
## Certificate of Analysis

**Product Name:** Ramipril  
**Cat. No.:** HY-B0279  
**CAS No.:** 87333-19-5  
**Batch No.:** 16577  
**Chemical Name:** Cyclopenta[b]pyrrole-2-carboxylic acid, 1-[(2S)-2-[[[(1S)-1-(ethoxycarbonyl)-3-phenylpropyl]amino]-1-oxopropyl]octahydro-, (2S,3aS,6aS)-

### PHYSICAL AND CHEMICAL PROPERTIES

**Molecular Formula:** C<sub>23</sub>H<sub>32</sub>N<sub>2</sub>O<sub>5</sub>  
**Molecular Weight:** 416.51  
**Storage:**  
Powder      -20°C      3 years  
                  4°C        2 years  
In solvent   -80°C      6 months  
                  -20°C      1 month

**Chemical Structure:**



### ANALYTICAL DATA

**Appearance:** White to off-white (Solid)  
**<sup>1</sup>H NMR Spectrum:** Consistent with structure  
**LCMS:** Consistent with structure  
**Purity (LCMS):** 99.81%  
**Conclusion:** The product has been tested and complies with the given specifications.

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA