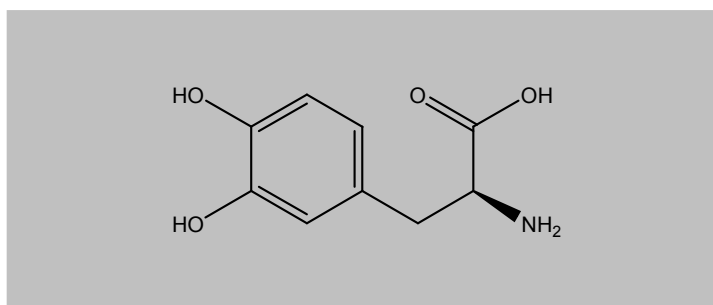


**Certificate Of Analysis**  
**Quality Control Testing and Research Application**COA Preparation Date: 25/09/2013  
COA Revision Date: 25/09/2016

**Product:** Levodopa  
**Cat. No.:** BG0419  
**Batch No.:** 0419BG/01  
**Chemical Name:** 2-Amino-3-(3,4-dihydroxyphenyl)-propanoic acid; L-DOPA; 3,4-Dihydroxy-L-phenylalanine

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>9</sub>H<sub>11</sub>NO<sub>4</sub>  
**Batch Molecular Weight:** 197.19  
**CAS No.:** [59-92-7]  
**Physical Appearance:** White crystalline powder  
**Melting Point:** 276 - 278° C  
**Solubility:** Soluble to 40 mM in water  
**Storage:** RT  
**Batch Molecular Structure:**



**Product Description:** Natural isomer of the immediate precursor of Dopamine and product of Tyrosine hydroxylase. Is used to replace Dopamine lost in Parkinson's disease, because Dopamine itself cannot cross the blood-brain barrier where its precursor can. However, L-DOPA is converted to Dopamine in the periphery as well as in the CNS, so it is administered with a peripheral DDC (Dopamine Decarboxylase) inhibitor such as Carbidopa and with a COMT inhibitor if possible.

**References:** 1. Tabar et al. (1989) Pharmacol Biochem Behav 33:139; 2. De Souza Silva et al. (1997) J Neurochem 68:233; 3. Feigin (2001) Neurology 57:2083

- CAUTION - Not fully tested. For Research use only. Not for human use. -

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### Quality Control Testing and Research Application

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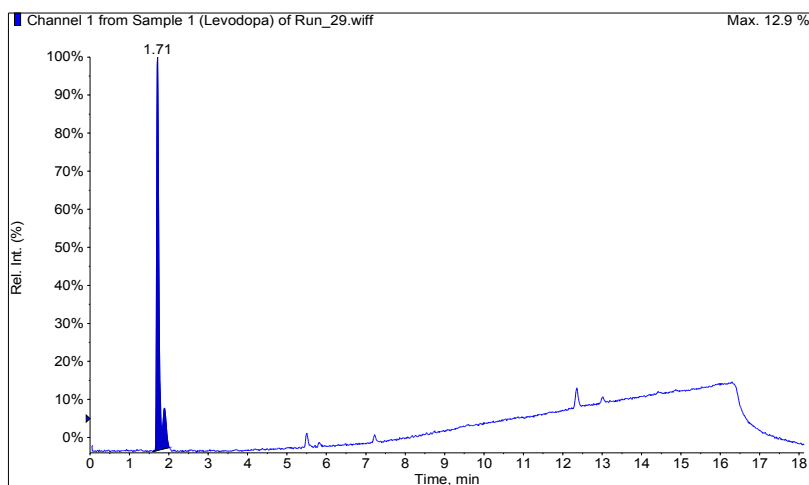
**BG0419 Levodopa**

#### 2. ANALYTICAL DATA

HPLC: corresponds to the reference

MS: corresponds to the reference

Tests: pH: 5.60 (complies); Specific optical rotation:  $-162.5^\circ$  (complies); Loss on drying: 0.027% (complies); Heavy Metals: < 10 ppm (complies); HPLC Assay: 99.65% (complies).



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