## **Certificate of Analysis**



Product Identification		Chemical Structure	
Catalog number	HB0251		
Compound name	DL-AP5		
Chemical name	DL-2-Amino-5-phosphonopentanoic acid	NH <sub>2</sub>	
		PO(OH)	
		$HO_2C^2 \checkmark \checkmark \land $	
Batch number	E2043-2-8		
Batch molecular formula	C <sub>5</sub> H <sub>11</sub> NNaO <sub>5</sub> P		
Batch molecular weight	197.13		
Method	QC requirement	QC Result	
method			
HPLC	Chiral HPLC shows >98% purity as two enantiomers	Meets specification: 100%	
NMR	1H NMR in $D_2O$ at 400 MHz consistent with structure	Meets specification	
Mass spectrum	Electrospray negative analysis consistent with structure	Meets specification	
Microanalysis	Elemental analysis is within 0.4% for the batch molecular formula	Meets specification	
TLC	TLC analysis in 1:1 PAW:BuOH shows one spot with ninhydrin	Meets Specification; Rf~0.2	
Physical appearance	White to off-white solid	Meets specification: White solid	
Solubility	Soluble in water (100 mM)	Meets specification	
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Produced by	Signature	Roch
Passed by	Signature	S
	Date	19/10/2022

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.