



*The Power to Question*

# CERTIFICATE OF ANALYSIS

Catalog Number: sc-200429  
Lot Number: SAMPLE  
Product Name: D(-)-2-Amino-4-phosphonobutanoic acid (D-AP4)  
CAS Number: 78739-01-2  
Molecular Formula:  $C_4H_9NO_5P$   
Molecular Weight: 181.08

| Test                                 | Specification                  | Result        |
|--------------------------------------|--------------------------------|---------------|
| Appearance                           | White to off white powder      | White powder  |
| Purity (HPLC)                        | $\geq 97\%$                    | $> 98\%$      |
| Solubility                           | Soluble in dilute aqueous base | Complies      |
| Optical Rotation ( $\alpha_{20/D}$ ) | $-12.0^\circ \pm 2.0^\circ$    | $-12.5^\circ$ |
| Carbon Content                       | 26.24%                         | 25.89%        |
| Hydrogen Content                     | 5.50%                          | 5.71%         |
| Nitrogen Content                     | 7.65%                          | 7.58%         |

Satisfaction Guarantee: We appreciate your business and are committed to providing the highest level of quality and service. Any product that does not meet the performance standards indicated in our product literature will be replaced at no charge. Our policy is valid for one year from the date of your purchase.

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