

## Analytical Data Sheet

Lot number **1000009486**  
not for drug use

Catalog number **N-1000.0100**  
Product number **4013467.0100**  
Product **Leupeptin**  
Ac- Leu- Leu- Arg- aldehyde · sulfate salt  
Molecular formula  $2\text{C}_{20}\text{H}_{38}\text{N}_6\text{O}_4 \cdot \text{H}_2\text{SO}_4$   
Relative molecular mass 951.20

Tests	Results
Appearance	white powder
Appearance of solution	clear, colorless solution (25 mg/mL in water)
Identification (ESI-MS)	$m = 426.4\text{u}$ (monoisotopic mass)
Specific optical rotation	$[\alpha]_{\text{D}}^{24} = -84.004$ (0.1% in water)
Purity (HPLC)	97.8380% (TEAP) (sum of 3 peaks (isomers))
Related impurities (HPLC)	0.6971% Ac-Leu-Leu-D-Arg-aldehyde (sum of 3 peaks (isomers))
Assay (elemental analysis)	90.9% (Nth 17.67% ;Nfd 16.06%)
Water content (KF coulometric)	6.1%
Elemental content (AAS)	< 40mg/kg sodium
Sulfate content (IC)	9.0%
Residual organic solvents (GC)	diisopropylether 130 mg/kg ethanol 100 mg/kg isopropanol not det. toluene not det. dimethylformamide 100 mg/kg n-butanol 10 mg/kg methanol 80 mg/kg ethylacetate not det.
Trace metals (ICP-MS)	< 0.1mg/kg palladium

Latest update: December 03, 2018

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