

## 4406-s $\beta$ -Defensin-4 (Human) (Typical Assay)

Glu-Leu-Asp-Arg-Ile-Cys-Gly-Tyr-Gly-Thr-Ala-Arg-Cys-Arg-Lys-Lys-Cys-Arg-Ser-Gln-Glu-Tyr-Arg-Ile-Gly-Arg-Cys-Pro-Asn-Thr-Tyr-Ala-Cys-Cys-Leu-Arg-Lys  
(disulfide bonds between Cys<sup>6</sup>-Cys<sup>33</sup>, Cys<sup>13</sup>-Cys<sup>27</sup> and Cys<sup>17</sup>-Cys<sup>34</sup>)

M.W. 4366.05                      C<sub>180</sub>H<sub>295</sub>N<sub>63</sub>O<sub>52</sub>S<sub>6</sub>

**Appearance:**                      white amorphous powder

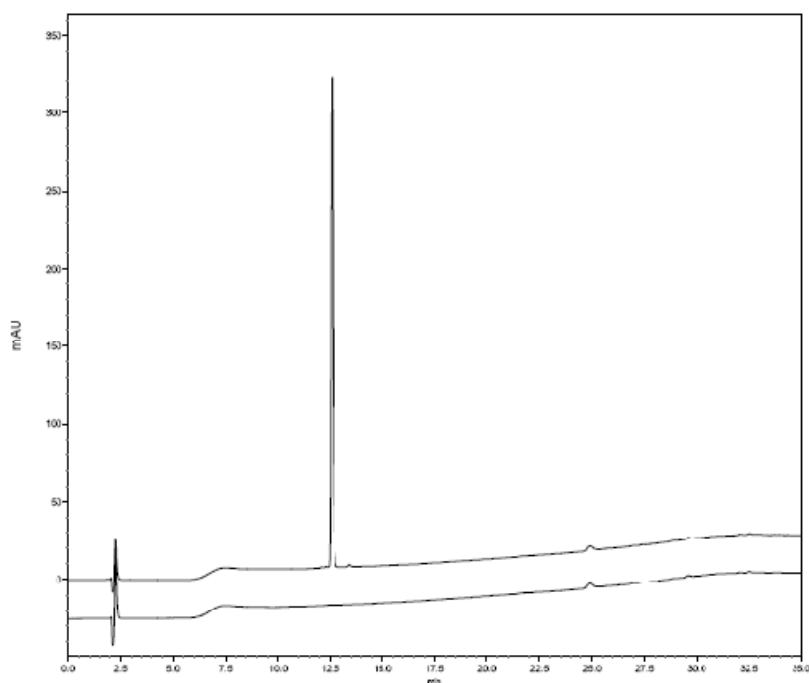
**Specific optical rotation:**     $[\alpha]_D^{21} - 53.0^\circ$  (C\* 0.23; H<sub>2</sub>O)  
calculated from net weight

**Elemental Analysis:**              Calculated for C<sub>180</sub>H<sub>295</sub>N<sub>63</sub>O<sub>52</sub>S<sub>6</sub> x 5 AcOH x 34.8 H<sub>2</sub>O  
calc.    C: 43.11            H: 7.32            N: 16.67  
found: C: 43.12            H: 7.29            N: 16.64

**Amino Acid Analysis:**            6N HCl, 110 °C, 22 h  
Asp (2) 1.99    Thr (2) 1.90    Ser (1) 0.92    Glu (3) 3.00  
Pro (1) 1.06    Gly (3) 2.97    Ala (2) 1.98    Cys (6) 5.08  
Ile (2) 1.86    Leu (2) 2.00    Tyr (3) 2.70    Lys (3) 2.96  
NH<sub>3</sub> (2) 2.91    Arg (7) 6.86

**TLC:**                                    single spot

**Cellulose Layer**                      Application: 50  $\mu$ g  
Solvent System: n-BuOH : AcOH : H<sub>2</sub>O : Pyridine = 15:3:12:10  
Located by Ninhydrin and Pauly reagent



Sample Size:    0.8  $\mu$ l (0.1 mg / 20  $\mu$ l | 1% HAc)  
Column: YMC Pack ODS A-302 (4.6 mm ID x 150 mm)  
Detection 210 nm

**$\beta$ -Defensin-4 is sold for research purposes only and not for use in humans**