

# Certification of Analysis

## Melanotan I Acetate

<b>Other Name</b>	[Nle <sup>4</sup> , D-Phe <sup>7</sup> ]-alpha-MSH	<b>CAS No.</b>	75921-69-6
<b>Molecular Formula</b>	C <sub>78</sub> H <sub>111</sub> N <sub>21</sub> O <sub>19</sub>	<b>Batch No.</b>	20090809
<b>Molecular Weight</b>	1646.9	<b>Manufacturing</b>	08/09/2009
<b>Storage</b>	2~8°C	<b>Retest Date</b>	08/08/2011
<b>Sequence</b>	Ac-Ser-Tyr-Ser-Nle-Glu-His-D-Phe-Arg-Trp-Gly-Lys-Pro-Val-NH <sub>2</sub>		
<b>TEST</b>		<b>SPECIFICATION</b>	<b>RESULT</b>
1	<b>Appearance</b>	White powder or Off-white powder	White powder
2	<b>Solubility</b>	Soluble in water or 10% acetic acid at a concentration of $\geq 1\text{mg/ml}$ to give a clear, colorless solution	Conforms
3	<b>Amino Acid Composition</b>	$\pm 10\%$ of theoretical	Conforms
4	<b>Peptide Purity (By HPLC)</b>	$\geq 95.0\%$ by area integration	98.12%
5	<b>Related Substance(By HPLC)</b>	Total Impurities(%) $\leq 5.0\%$ Largest Single Impurity(%) $\leq 2.0\%$	1.88% 1.30%
6	<b>Acetate Content(By HPLC)</b>	$\leq 15.0\%$	4.93%
7	<b>Water Content(Karl Fischer)</b>	$\leq 8.0\%$	4.35%
8	<b>Bacterial Endotoxins</b>	$\leq 5 \text{ IU/mg}$	Conforms

Quality Control By Zhouzhongbin Date: 2009-08-31

Quality Assurance Department