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## Certificate of Analysis

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Product Name: HIV-1 Tat Protein Peptide  
Cat. No.: GC17589  
Batch No.: 1  
Chemical Name: 32-amino-11-(3-amino-3-oxopropyl)-20,23-bis(4-aminobutyl)-2,5,8,14,17,26-hexakis(3-((diaminomethylene)amino)propyl)-33-(4-hydroxyphenyl)-4,7,10,13,16,19,22,25,28,31-decaoxo-3,6,9,12,15,18,21,24,27,30-decaazatritriacontan-1-oic acid

### PHYSICAL AND CHEMICAL PROPERTIES

Cas. No.: 191936-91-1  
Molecular Formula:  $C_{64}H_{118}N_{32}O_{14}$   
Molecular Weight: 1559.83  
Storage: Store at  $-20^{\circ}C$   
Chemical Structure:

### ANALYTICAL DATA

Appearance: solid  
HNMR: Consistent with structure  
HPLC: Consistent with structure  
Purity: >98%  
Conclusion: The product has been tested and complies with the given specifications.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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