

## Certificate of Analysis

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**Product Name:** MM-22

**Catalog No.:** 4104

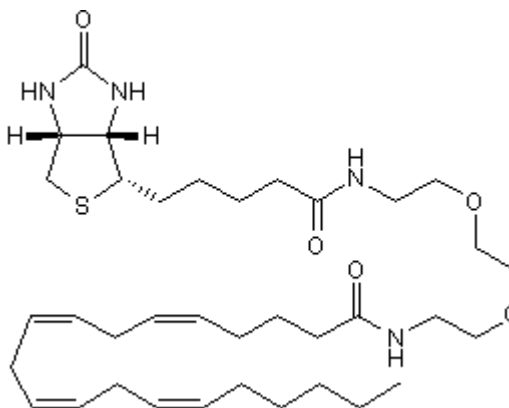
**Batch No.:** 1

**CAS Number:** 956605-71-3

**IUPAC Name:** (3aS,4S,6aR)-Hexahydro-2-oxo-N-[2-[2-[2-[[[(5Z,8Z,11Z,14Z)-1-oxo-5,8,11,14-eicosatetraen-1-yl]amino]ethoxy]ethoxy]ethyl]-1H-thieno[3,4-d]imidazole-4-pentanamide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>36</sub>H<sub>60</sub>N<sub>4</sub>O<sub>5</sub>S  
**Batch Molecular Weight:** 660.95  
**Physical Appearance:** Beige solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 50 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.32 (Dichloromethane:Methanol [9:1])  
**HPLC:** Shows 99.5% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

Carbon Hydrogen Nitrogen

Theoretical	65.42	9.15	8.48
Found	65.01	9.21	8.53

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

## Product Information

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### Description:

Biotinylated anandamide analog; acts as a probe for visualizing the accumulation and intracellular trafficking of anandamide. Blocks anandamide uptake ( $IC_{50}$  = 0.5  $\mu$ M in HaCaT cells); prevents interaction with FAAH, CB<sub>1</sub> and TRPV1.

### Physical and Chemical Properties:

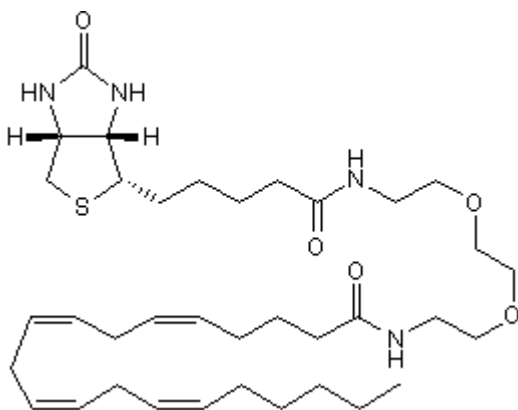
Batch Molecular Formula: C<sub>36</sub>H<sub>60</sub>N<sub>4</sub>O<sub>5</sub>S

Batch Molecular Weight: 660.95

Physical Appearance: Beige solid

**Minimum Purity:** >98%

### Batch Molecular Structure:



**Storage:** Store at -20°C

### Solubility & Usage Info:

DMSO to 100 mM

ethanol to 50 mM

### Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

### References:

**Fezza et al** (2008) Characterization of biotin-anandamide, a novel tool for the visualization of anandamide accumulation. *J.Lipid.Res.* **49** 1216. PMID: 18316795.

**Oddi et al** (2008) Evidence for the intracellular accumulation of anandamide in adiposomes. *Cell Mol.Life Sci.* **65** 840. PMID: 18213445.

**Oddi et al** (2009) Molecular identification of albumin and Hsp70 as cytosolic anandamide-binding proteins. *Chem.Biol.* **16** 624. PMID: 19481477.

**Oddi et al** (2010) Pitfalls and solutions in assaying anandamide transport in cells. *J.Lipid.Res.* **51** 2435. PMID: 20447929.

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