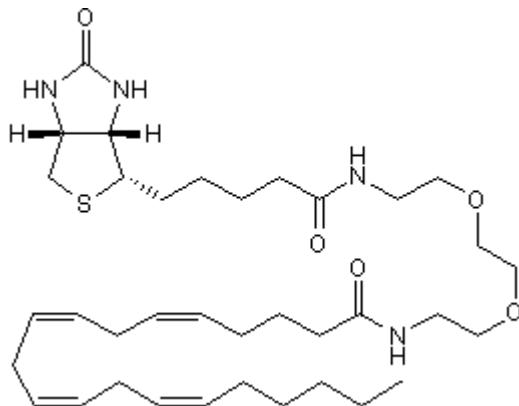


**Certificate of Analysis**[www.tocris.com](http://www.tocris.com)**Product Name:** MM-22**Catalog No.:** 4104**Batch No.:** 1

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

**bio-technne.com**

info@bio-technne.com

techsupport@bio-technne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-technne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**[www.tocris.com/distributors](http://www.tocris.com/distributors)

Tel: +1 612 379 2956

## Product Information

[www.tocris.com](http://www.tocris.com)

**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

**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:**

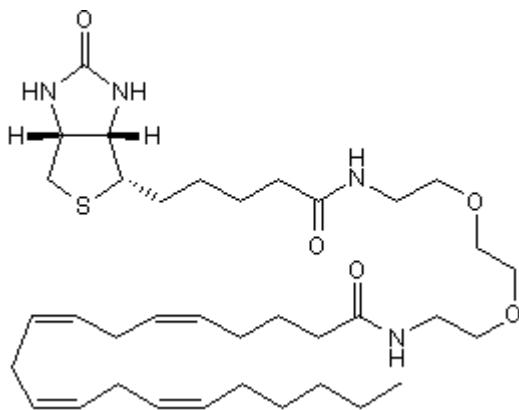
Batch Molecular Formula: C<sub>36</sub>H<sub>60</sub>N<sub>4</sub>O<sub>5</sub>S

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.

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

**bio-techne.com**

info@bio-techne.com  
techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com  
Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

[www.tocris.com/distributors](http://www.tocris.com/distributors)  
Tel: +1 612 379 2956