

Diotechne TOCRIS

Certificate of Analysis

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Print Date: Feb 28th 2024

Product Name: W146 Catalog No.: 3602 Batch No.: 2

CAS Number: 909725-61-7

IUPAC Name: [(3R)-3-amino-4-[(3-hexylphenyl)amino]-4-oxobutyl]-phosphonic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{16}H_{27}N_2O_4P$

Batch Molecular Weight: 342.37
Physical Appearance: White solid

Solubility: 3eq. NaOH to 20 mM

Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.05$ (Pyridine:Acetic acid:Water [3:8:11])

HPLC: Shows >99.6% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D = -3.2$ (Concentration = 3.4, Solvent = 0.1M NaOH)

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 56.13 7.95 8.18 Found 55.79 7.9 8.21



Product Information

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IUPAC Name: [(3R)-3-amino-4-[(3-hexylphenyl)amino]-4-oxobutyl]-phosphonic acid

Description:

W146 is a potent sphingosine-1-phosphate receptor $S1P_1$ selective antagonist (K_i = 18 nM); displays no effect at $S1P_2$, $S1P_3$ or $S1P_5$. Enhances capillary leakage and restores lymphocyte egress in vivo.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₆H₂₇N₂O₄P Batch Molecular Weight: 342.37 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:

3eq. NaOH to 20 mM

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Gonzalez-Cabrera *et al* (2008) Full pharmacological efficacy of a novel S1P₁ agonist that does not require S1P-like headgroup interactions. Mol.Pharmacol. **74** 1308. PMID: 18708635.

Sanna et al (2006) Enhancement of capillary leakage and restoration of lymphocyte egress by a chiral S1P₁ antagonist in vivo. Nat.Chem.Biol. **8** 434. PMID: 16829954.

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