

Certificate of Analysis

Print Date: Aug 17th 2017

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Product Name: SR 12813 Catalog No.: 2969 Batch No.: 1

CAS Number: 126411-39-0

IUPAC Name: [[3,5-Bis(1,1-dimethylethyl)-4-hydroxyphenyl]ethenylidene]bis-phosphonic acid tetraethyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{24}H_{42}O_7P_2$ Batch Molecular Weight:504.53Physical Appearance:Beige solid

Solubility: DMSO to 100 mM

ethanol to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.4$ (Chloroform:Methanol [95:5])

HPLC: Shows >99.9% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 57.13 8.39 Found 57.12 6.8



Product Information

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IUPAC Name: [[3,5-Bis(1,1-dimethylethyl)-4-hydroxyphenyl]ethenylidene]bis-phosphonic acid tetraethyl ester

Description:

Pregnane X receptor (PXR) agonist (EC $_{50}$ values are 200 and 700 nM for human and rabbit PXR respectively). Activates the farnesoid X receptor (FXR) at μ M concentrations. Displays hypocholesterolaemic activity via enchanced degradation of HMG-CoA reductase.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₄H₄₂O₇P₂ Batch Molecular Weight: 504.53 Physical Appearance: Beige solid

Minimum Purity: >99%

Batch Molecular Structure:

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM ethanol to 100 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:

Lemaire *et al* (2007) Discovery of a highly active ligand of human pregnane X receptor: a case study from pharmacophore modeling and virtual screening to "in vivo" biological activity. Mol.Pharmacol. **72** 572. PMID: 17573484.

Jones *et al* (2000) The pregnane X receptor: a promiscuous xenobiotic receptor that has diverged during evolution. Mol.Pharmacol. *14* 27.

Berkhout *et al* (1996) The novel cholesterol-lowering drug SR-12813 inhibits cholesterol synthesis via an increased degradation of 3-hydroxy-3-methylglutaryl-coenzyme A reductase J.Biol.Chem. **271** 14376. PMID: 8662919.