

Certificate of Analysis

Print Date: Sep 12th 2022

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Product Name: MRS 2365 Catalog No.: 2157 Batch No.: 7

IUPAC Name: [[(1R,2R,3S,4R,5S)-4-[6-Amino-2-(methylthio)-9H-purin-9-yl]-2,3-dihydroxybicyclo[3.1.0]hex-1-yl]methyl]

diphosphoric acid mono ester trisodium salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₃H₁₆N₅O₉P₂SNa₃

Batch Molecular Weight: 549.28 **Physical Appearance:** solution

Solubility: Soluble in water (supplied pre-dissolved at a concentration of 10mM)

Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.8% purity **Mass Spectrum:** Consistent with structure

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Product Information

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Description:

MRS 2365 is a highly potent, selective P2Y₁ receptor agonist (EC₅₀ = 0.4 nM). Displays no activity at P2Y₁₂ receptors and only very low agonist activity at P2Y₁₃ receptors (at concentrations up to 1 μ M). Increases the upregulation of NTPDase1 by ATPyS.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{13}H_{16}N_5O_9P_2SNa_3$

Batch Molecular Weight: 549.28 Physical Appearance: solution

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:

Soluble in water (supplied pre-dissolved at a concentration of 10mM)

This compound is supplied in aqueous solution at a concentration of 10mM.

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.

Licensing Information:

Sold under license from the NIH, US Patent 10/169975

References:

Lu *et al* (2007) Stimulation of the P2Y₁ receptor up-regulates nucleoside-triphosphate diphosphohydrolase-1 in human retinal pigment epithelial cells. J.Pharmacol.Exp.Ther. **323** 157. PMID: 17626796.

Chhatriwala *et al* (2004) Induction of novel agonist selectivity for the ADP-activated P2Y₁ receptor versus the ADP-activated P2Y₁₂ and P2Y₁₃ receptors by conformational constraint of an ADP analog. J.Pharmacol.Exp.Ther. *311* 1038. PMID: 15345752.

Ravi et al (2002) Adenine nucleotide analogues locked in a northern methanocarba conformation: enhanced stability and potency as P2Y₁ receptor agonists. J.Med.Chem. **45** 2090. PMID: 11985476.