

Certificate of Analysis

Print Date: Jan 15th 2016

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Product Name: Valdecoxib Catalog No.: 4206 Batch No.: 1

CAS Number: 181695-72-7 EC Number: 448-010-8

IUPAC Name: 4-(5-Methyl-3-phenylisoxazol-4-yl)benzenesulfonamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{16}H_{14}N_2O_3S$

Batch Molecular Weight: 314.36
Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

¹H NMR: Consistent with structure Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 61.13 4.49 8.91 Found 60.9 4.5 8.93



Product Information

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IUPAC Name: 4-(5-Methyl-3-phenylisoxazol-4-yl)benzenesulfonamide

Description:

Selective and potent COX-2 inhibitor (in vitro IC $_{50}$ values are 0.005 and 140 μ M for human recombinant COX-2 and COX-1 respectively). Displays potent anti-inflammatory activity in vivo.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₆H₁₄N₂O₃S Batch Molecular Weight: 314.36 Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:

Storage: Store at RT

Solubility & Usage Info:

DMSO 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:

Talley *et al* (2000) 4-[5-methyl-3-phenylisoxazol-4-yl]-benzenesulfonamide, valdecoxib: a potent and selective inhibitor of COX-2. J.Med.Chem. *43* 775. PMID: 10715145.

Walker et al (2001) A three-step kinetic mechanism for selective inhibition of cyclo-oxygenase-2 by diarylheterocyclic inhibitors. Biochem.J. 357 709. PMID: 11463341.

Gierse et al (2005) Valdecoxib: assessment of cyclooxygenase-2 potency and selectivity. J.Pharmacol.Exp.Ther. 312 1206. PMID: 15494548.