Valdecoxib
Item No. 10006120

CAS Registry No.: 181695-72-7
Formal Name: 4-(5-methyl-3-phenyl-4-isoxazolyl)-benzenesulfonamide
Synonym: Bextra
MF: C_{16}H_{14}N_{2}O_{3}S
FW: 314.4
Purity: ≥98%
UV/Vis.: \( \lambda_{\text{max}} \): 202, 235 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Valdecoxib is supplied as a crystalline solid. A stock solution may be made by dissolving the valdecoxib in the solvent of choice. Valdecoxib is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of valdecoxib in ethanol is approximately 5 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Valdecoxib is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, valdecoxib should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Valdecoxib has a solubility of approximately 0.5 mg/ml in a 1:8 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Valdecoxib is a non-steroidal anti-inflammatory drug that selectively inhibits COX-2 activity, exhibiting \( \text{IC}_{50} \) values of 26.1 and 0.87 \( \mu \text{M} \) for COX-1 and COX-2, respectively, in a human whole blood assay.\(^1\) The COX-2 selectivity ratio of 30 for valdecoxib in this assay is similar to the ratio of 35 observed for rofecoxib (Item No. 10010260).\(^1\) COX-2 selective inhibitors, including this compound, have been implicated as risk factors in acute atherothrombotic events.\(^2,3\)

References