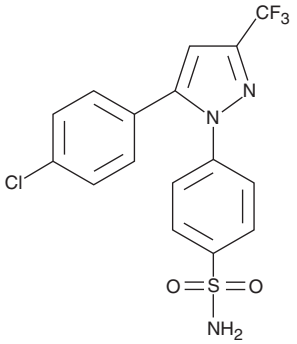
PRODUCT INFORMATION

SC-236

Item No. 10004219

CAS Registry No.:	170569-86-5
Formal Name:	4-[5-(4-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]-benzenesulfonamide
Synonym:	CID-9865808
MF:	$C_{16}H_{11}ClF_3N_3O_2S$
FW:	401.8
Purity:	≥98%
UV/Vis.:	λ_{max}: 254 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

SC-236 is supplied as a crystalline solid. A stock solution may be made by dissolving the SC-236 in the solvent of choice, which should be purged with an inert gas. SC-236 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of SC-236 in these solvents is approximately 30 mg/ml.

SC-236 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SC-236 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. SC-236 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

The physiologic roles and importance of constitutive COX-1 and inducible COX-2 have been reviewed.[1,2] SC-236 is a potent, selective, orally active inhibitor of COX-2 with an IC_{50} of 10 nM and approximately 18,000-fold COX-2 selectivity.[3] SC-236 has a long plasma half-life and can be dosed once daily (20 mg/kg) in rodents to achieve lasting inhibition of COX-2.[4]

References

1. Fitzpatrick, F.A. and Soberman, R. Regulated formation of eicosanoids. *J. Clin. Invest.* **107(11)**, 1339-1345 (2001).
2. Bertolini, A., Ottani, A., and Sandrini, M. Selective COX-2 inhibitors and dual acting anti-inflammatory drugs: Critical remarks. *Curr. Med. Chem.* **9(10)**, 1033-1043 (2002).
3. Penning, T.D., Talley, J.J., Bertenshaw, S.R., *et al.* Synthesis and biological evaluation fo the 1,5-diarylpyrazole class of cyclooxygenase-2 inhibitors: Identification of 4-[5-(4-methylphenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]benzenesulfonamide (SC-58635, celecoxib). *J. Med. Chem.* **40(9)**, 1347-1365 (1997).
4. Loftin, C.D., Trivedi, D.B., and Langenbach, R. Cyclooxygenase-1-selective inhibition prolongs gestation in mice without adverse effects on the ductus arteriosus. *J. Clin. Invest.* **110(4)**, 549-557 (2002).

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