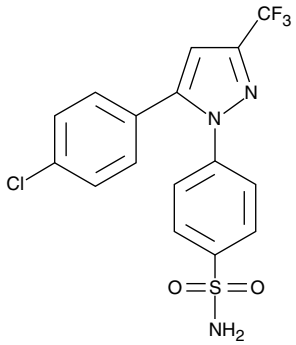
Product Information

SC-236

Item No. 10004219

CAS Registry No.: 170569-86-5
Formal Name: 4-[5-(4-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]-benzenesulfonamide
MF: $C_{16}H_{11}ClF_3N_3O_2S$
FW: 401.8
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 254 nm



Laboratory Procedures

For long term storage, we suggest that SC-236 be stored as supplied at -20°C. It should be stable for at least two years.

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

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} value 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. *Current Medicinal Chemistry* **9**, 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**, 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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