## Data Sheet (Cat.No.T15345)



#### FR-188582

Formula:

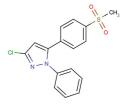
## **Chemical Properties**

CAS No.: 189699-82-9

C16H13CIN2O2S

Molecular Weight: 332.8
Appearance: N/A

Storage: 0-4°C for short term (days to weeks), or -20°C for long term (months).



# **Biological Description**

| Description                | FR-188582 is a highly selective cyclooxygenase (COX)-2 inhibitor (IC50: 17 nM).  |  |  |
|----------------------------|--|--|--|
| Targets(IC <sub>50</sub> ) | COX-2: 17 nM   |  |  |
| In vitro                   | FR-188582 inhibits COX-2 (IC50: 17 nM), in a recombinant human COX enzyme activity. The inhibition of prostaglandin (PG) E2 formation by FR188582 is over 6000 times more selective for COX-2 than COX-1.  |  |  |
| In vivo                    | FR-188582 (0.01-3.2 mg/kg, p.o.) reverses paw edema in adjuvant arthritic rats and displays a therapeutic effect in a dose-dependent manner. For adjuvant-injected paws and adjuvant-uninjected paws, the ED50s values (95% C.L.) are 0.074 (0.00021-0.53) and 0.063 (0.0039-0.31) mg/kg, respectively. The anti-inflammatory effect of FR-188582 is threefold more potent than that of Indomethacin. For adjuvant-injected paws and adjuvant-uninjected paws, the ED50s values (95% C.L.) are 0.24 (0.047-1.8) and 0.20 (0.021-0.79) mg/kg, respectively. |  |  |

# **Solubility Information**

| Solubility | < 1 mg/ml refers to the product slightly soluble or insoluble |
|------------|---|
|------------|---|

### **Preparing Stock Solutions**

|       | 1mg      | 5mg       | 10mg      |
|-------|----------|-----------|-----------|
| 1 mM  | 3.005 mL | 15.024 mL | 30.048 mL |
| 5 mM  | 0.601 mL | 3.005 mL  | 6.01 mL   |
| 10 mM | 0.3 mL   | 1.502 mL  | 3.005 mL  |
| 50 mM | 0.06 mL  | 0.3 mL    | 0.601 mL  |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

#### Reference

1. Ochi T, et al. The anti-inflammatory effect of FR188582, a highly selective inhibitor of cyclooxygenase-2, with an ulcerogenic sparing effect in rats. Jpn J Pharmacol. 2001 Feb;85(2):175-82.

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