

# MRS 2578

**Catalog No: tcsc0416**



## Available Sizes

**Size:** 10mg

**Size:** 50mg



## Specifications

**CAS No:**

711019-86-2

**Formula:**

$C_{20}H_{20}N_6S_4$

**Pathway:**

GPCR/G Protein

**Target:**

P2Y Receptor

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 80$  mg/mL (169.25 mM)

**Observed Molecular Weight:**

472.67

## Product Description

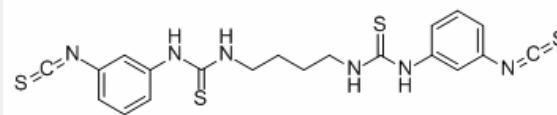
MRS2578 is a potent P2Y6 receptor antagonist with IC50 of 37 nM, exhibits insignificant activity at P2Y1, P2Y2, P2Y4, and P2Y11 receptors.

IC50 value: 37 nM [1]

Target: P2Y6 receptor

in vitro: MRS2578 selectively blocks P2Y6 receptor activity versus activity at P2Y1, P2Y2, P2Y4 or P2Y11 receptors. MRS2578 (1  $\mu$ M) completely blocks the protection by UDP undergoing TNF $\alpha$ -induced apoptosis in 1321N1 astrocytoma cells [1]. MRS 2578 inhibits basal NF- $\kappa$ B activity in time and dose dependent manner in HMEC-1 cells transfected with 0.25  $\mu$ g NF- $\kappa$ B promoter reporter. MRS 2578 (10  $\mu$ M) completely abolishes TNF- $\alpha$  induced NF- $\kappa$ B reporter activity in HMEC-1 cells. MRS 2578 (10  $\mu$ M) significant reduces TNF- $\alpha$ -induced proinflammatory gene expression in HMEC-1 cells [2]. MRS2578-treated mice shows reduced bronchial hyperresponsiveness toward methacholine in OVA-sensitized mice. MRS2578 completely blocks UDP-induced the release of IL-6, KC, and IL-8 in lung epithelial cells [3].

in vivo: MRS 2578 (10  $\mu$ M) attenuates Keratinocyte-derived chemokine serum protein levels in LPS-induced vascular inflammation in C57BL/6 mice [2]. MRS2578 (10  $\mu$ M, intratracheally) reduces BALF eosinophilia and the levels of IL-5 and IL-13 in the BALF in OVA-sensitized mice and leads to a markedly attenuated change in methacholine responsiveness after OVA challenge. MRS2578 (10  $\mu$ M, intratracheally) inhibits house dust mite-induced allergic airway inflammation in OVA-sensitized mice. MRS2578 (10  $\mu$ M, intratracheally) reduces of IL-6 and KC levels in BALF in OVA-sensitized mice [4].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!