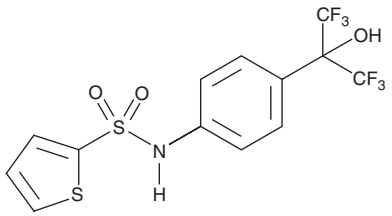
PRODUCT INFORMATION

SR 3335

Item No. 12072

CAS Registry No.:	293753-05-6
Formal Name:	N-[4-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]phenyl]-2-thiophenesulfonamide
Synonym:	ML 176
MF:	$C_{13}H_9F_6NO_3S_2$
FW:	405.3
Purity:	≥95%
UV/Vis.:	λ_{max}: 231 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

SR 3335 is supplied as a crystalline solid. A stock solution may be made by dissolving the SR 3335 in the solvent of choice, which should be purged with an inert gas. SR 3335 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of SR 3335 in these solvents is approximately 33, 16, and 20 mg/ml, respectively.

SR 3335 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SR 3335 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. SR 3335 has a solubility of approximately 0.5 mg/ml in a 1:1 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 retinoic acid receptor-related receptors (RORs) are orphan nuclear receptors with diverse putative roles.[1-3] SR 3335 is a selective inverse agonist of RORα, competitively inhibiting the binding of 25-hydroxycholesterol to the ligand binding domain (K_i = 220 nM) and inhibiting constitutive transactivation activity (IC_{50} = 480 nM).[4] It is without effect on RORβ, RORγ, farnesoid X receptor, or liver X receptor α. SR 3335 evokes RORα-dependent effects both *in vitro* and *in vivo*, altering gene expression as well as gluconeogenesis.[4]

References

1. Solt, L.A., Kumar, N., Nuhant, P., *et al.* Suppression of T_H17 differentiation and autoimmunity by a synthetic ROR ligand. *Nature* **472(7344)**, 491-494 (2011).
2. Jetten, A.M. and Ueda, E. Retinoid-related orphan receptors (RORs): Roles in cell survival, differentiation and disease. *Cell Death Differ.* **9(11)**, 1167-1171 (2002).
3. Ivanov, I.I., McKenzie, B.S., Zhou, L., *et al.* The orphan nuclear receptor RORγt directs the differentiation program of proinflammatory IL-17$^+$ T helper cells. *Cell* **126(6)**, 1121-1133 (2006).
4. Kumar, N., Kojetin, D.J., Solt, L.A., *et al.* Identification of SR3335 (ML176): A synthetic RORα selective inverse agonist. *ACS Chem. Biol.* **6(3)**, 218-222 (2011).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM