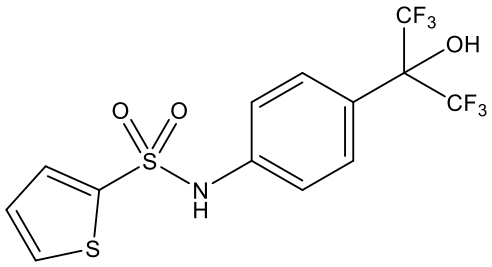
Catalog # 10-4068

SR3335

CAS# 293753-05-6

N-[4-(1,1,1,3,3,3-Hexafluoro-2-hydroxypropan-2-yl)phenyl]thiophene-2-sulfonamide; ML176

Lot # FBA8152



SR3335 is a selective RORα partial inverse agonist (IC_{50} = 480 nM) – displays no activity at RORß, RORγ, or FXR.[1] It was able to suppress gluconeogenesis in diet-induced obese mice. SR3335 was able to upregulate uncoupling protein 1 (UCP1), a unique mitochondrial protein devoted to thermogenesis, in wild type mice leading to decreased body weight and fat mass.[2,3] It inhibited the development of mouse and human T_H17 cells *in vitro* and *in vivo* leaving thymic T cells intact.[4] SR3335's ability to block pathogenic, but not protective T_H17 cell function makes it an important new tool in the study of T_H17-mediated inflammatory and autoimmune diseases.

1) Kumar *et al*. (2011), *Identification of SR3335 (ML176): a synthetic RORα selective inverse agonist*; ACS Chem. Biol. **6** 218
2) Monnier *et al*. (2018), *The nuclear retinoid-related orphan receptor RORα controls circadian thermogenic programming in white fat depots*; Physiol. Rep. **6** e13678
3) Auclair *et al*. (2021), *Pharmacological modulation of ROR α controls fat browning, adaptive thermogenesis, and body weight in mice*; Am. J. Physiol. Endocrinol. **320** E219
4) Wang *et al*. (2021), *Genetic and pharmacological inhibition of the nuclear receptor RORα regulates T_H17 driven inflammatory disorders*; Nat. Commun. **12** 76

PHYSICAL DATA

Molecular Weight:	405.33
Molecular Formula:	$C_{13}H_9F_6NO_3S_2$
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (at least 50 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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