# **PRODUCT** INFORMATION



SR 2211

Item No. 11972

CAS Registry No.:	1359164-11-6		
Formal Name:	2-fluoro-4'-[[4-(4-pyridinylmethyl)-1-		CE
	piperazinyl]methyl]-a,a-bis(trifluoromethyl)-		_OH
	[1,1'-biphenyl]-4-methanol		
MF:	$C_{26}H_{24}F_7N_3O$		CF <sub>3</sub>
FW:	527.5		
Purity:	≥98%		
UV/Vis.:	λ <sub>max</sub> : 251 nm		
Supplied as:	A crystalline solid	Ń N	F
Storage:	-20°C	$\checkmark$	
Stability:	≥2 years		
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Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

# Laboratory Procedures

SR 2211 is supplied as a crystalline solid. A stock solution may be made by dissolving the SR 2211 in the solvent of choice, which should be purged with an inert gas. SR 2211 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of SR 2211 in ethanol is approximately 10 mg/ml and approximately 20 mg/ml in DMSO and DMF.

# Description

Retinoic acid receptor-related nuclear receptor  $\gamma$  (ROR $\gamma$ ) plays a central role in T cell differentiation, particularly in the differentiation of pro-inflammatory  $T_{H}17$  cells, which are implicated in autoimmune diseases like multiple sclerosis and rheumatoid arthritis.<sup>1,2</sup> SR 2211 selectively binds ROR $\gamma$  (K<sub>i</sub> = 105 nM), acting as an inverse agonist of constitutive in vitro ROR $\gamma$  activity (IC<sub>50</sub> = 320 nM).<sup>3</sup> It has minimal effects on RORa, LXRa, and FXR activities. SR 2211 significantly inhibits gene expression of IL-17 and IL-23 receptor in activated EL-4 mouse T lymphocytes when given at 5  $\mu$ M.<sup>3</sup>

# References

- 1. Ivanov, I.I., McKenzie, B.S., Zhou, L., et al. The orphan nuclear receptor RORγt directs the differentiation program of proinflammatory IL-17<sup>+</sup> T helper cells. Cell 126(6), 1121-1133 (2006).
- 2. Solt, L.A., Kumar, N., Nuhant, P., et al. Suppression of T<sub>H</sub>17 differentiation and autoimmunity by a synthetic ROR ligand. Nature 472(7344), 491-494 (2011).
- 3. Kumar, N., Lyda, B., Chang, M.R., et al. Identification of SR2211: A potent synthetic RORy-selective modulator. ACS Chem. Biol. 7(4), 672-677 (2012).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

## SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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