

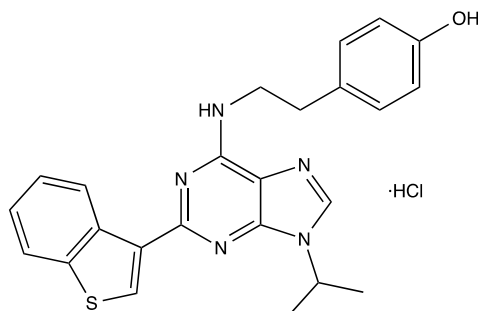
Catalog # 10-4508

SR1

4-[2-[[2-Benzo[b]thien-3-yl-9-(1-methylethyl)-9H-purin-6-yl]amino]ethyl]phenol

CAS# 1227633-49-9

Lot # FBM2160



StemRegenin-1, extends the pluripotency of hematopoietic stem cells by antagonizing the arylhydrocarbon receptor (AhR), $IC_{50} = 127 \text{ nM}$.¹ The effect is dose-dependent and reversible. Displays a biphasic effect on CD34-negative cells with low doses ($1 \mu\text{M}$) enhancing proliferation and high doses ($>5 \mu\text{M}$) repressing proliferation.² May be used to generate progenitor T cells³ from HSPCs as well as NK cells for immunology studies⁴.

- 1) Boitano *et al.* (2010), *Aryl hydrocarbon receptor antagonists promote the expansion of human hematopoietic stem cells*; *Science*, **329** 1354
- 2) Tao *et al.* (2017), *StemRegenin 1 selectively promotes expansion of Multipotent Hematopoietic Progenitors derived from Human Embryonic Stem Cells*; *J. Stem Cells Regen. Med.*, **13** 75
- 3) Singh *et al.* (2019), *Generation and function of progenitor T cells from stemRegenin-1-expanded CD34+ human hematopoietic progenitor cells*; *Blood Adv*, **3** 2934
- 4) Hoogstad-van Evert *et al.* (2017), *Umbilical cord blood CD34+ progenitor-derived NK cells efficiently kill ovarian cancer spheroids and intraperitoneal tumors in NOD/SCID/IL2Rg^{null} mice*; *Oncoimmunology*, **6(8)** e1320630

PHYSICAL DATA

Molecular Weight:	466.00
Molecular Formula:	$C_{24}H_{23}N_5OS \cdot HCl$
Purity:	99% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 10 mM)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.