

Catalog # 10-4350

Sotrastaurin

CAS# 425637-18-9 3-(1H-Indol-3-yl)-4-[2-(4-methylpiperazin-1-yl)quinazolin-4-yl]pyrrole-2,5-dione; AEB071 Lot # FBS4061



Sotrastaurin is a highly selective and potent (IC₅₀'s for PKC isotypes: α = 2.1 nM, β 1 = 2.0 nM, δ = 1.3 nM, ϵ = 6.2 nM, η = 6.1 nM, Θ = 1.0 nM) pan-PKC inhibitor.¹ Potent immunomodulatory agent that inhibits early T-cell activation and displays potential for the prevention of transplant rejection and the treatment of inflammatory diseases.^{2,3} Sotrastaurin has anticancer activity in various cancer models including breast⁴, CLL⁵, ocular melanoma⁶, and B-cell lymphoma⁷.

- 1) Wagner et al. (2009), Discovery of 3-(1H-Indol-3-yl)-4-[2-(4-methylpiperazin-1-yl)quinazolin-4-yl]pyrrole-2,5-dione (AEB071),a Potent and Selective Inhibitor of Protein Kinase C Isotypes; J. Med. Chem. **52** 6193
- 2) Manicassamy (2009), Sotrastaurin, a protein kinase C inhibitor for the prevention of transplant rejection and treatment of psoriasis; Curr. Opin. Investig. Drugs **10** 1225
- 3) Matz et al. (2011), Evaluation of the novel protein kinase C inhibitor sotrastaurin as immunosuppressive therapy after renal transplantation; Expert Opin. Drug Metab. Toxicol. **7** 103
- 4) Byerly et al. (2016), PRKCQ promotes oncogenic growth and anoikis resistance of a subset of triple-negative breast cancer cells; Breast Cancer Res. **18** 95
- 5) El-Gamal et al. (2014), PKC-beta as a therapeutic target in CLL: PKC inhibitor AEB071 demonstrates preclinical activity in CLL; Blood **124** 1481
- 6) Wu et al. (2012), Protein kinase C inhibitor AEB071 targets ocular melanoma harboring GNAQ mutations via effects on the PKC/Erk1/2 and PKC/NF-kappaB pathways; Mol. Cancer Ther. **11** 1905
- 7) Naylor et al. (2011), Protein kinase C inhibitor sotrastaurin selectively inhibits the growth of CD79 mutant diffuse large B-cell lymphomas; Cancer Res. **71** 2643

PHYSICAL DATA

Molecular Weight:	438.49
Molecular Formula:	C ₂₅ H ₂₂ N ₆ O ₂
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/ml)
Physical Description:	Orange 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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