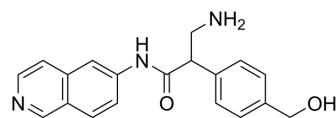


(rac)-AR-13503

Cat. No.:	HY-125639
CAS No.:	1254032-16-0
Molecular Formula:	C ₁₉ H ₁₉ N ₃ O ₂
Molecular Weight:	321.37
Target:	PKC; ROCK
Pathway:	Epigenetics; TGF-beta/Smad; Cell Cycle/DNA Damage; Cytoskeleton; Stem Cell/Wnt
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	(rac)-AR-13503 ((rac)-AR-13324 M1 metabolite) is the isoform of AR-13503 (HY-12798C). AR-13503 a ROCK/PKC inhibitor, inhibiting angiogenesis and enhancing retinal pigment epithelium (RPE) permeability. AR-13503 also inhibits the formation of aberrant neovascularization (NV) in oxygen-induced retinopathy (OIR) model in mice ^{[1][2]} .	
In Vitro	AR-13503 (16 h) inhibits human umbilical vein endothelial cell (HUVEC) tube formation, with an IC ₅₀ value of 21 nM ^[1] . AR-13503 (400 nM; 5 d) decreases the sprouting area of the choroidal in a dose-dependent manner ^[1] . AR-13503 (400 nM; 2 weeks) enhances primary porcine RPE barrier function in a dose-dependent manner ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	AR-13503 (1.25 mg/kg; i.p.; once daily for 5 days) in collaboration with Aflibercept (HY-108801), significantly decreases the development of aberrant neovascularization (NV) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Oxygen-induced retinopathy (OIR) mice model (C57BL/6; 7-days-old) ^[1]
	Dosage:	1.25 mg/kg
	Administration:	Intraperitoneal injection; once daily for 5 days
	Result:	The combination group had a greater (~75%) reduction in NV than Aflibercept alone (~55%).

REFERENCES

[1]. Ding J, et al. ROCK/PKC inhibitor AR-13503 inhibits angiogenesis and protects the barrier function of retinal pigment epithelium[J]. Investigative Ophthalmology & Visual Science, 2018, 59(9): 205-205.

[2]. Carbajal K, et al. AR-13503 Enhances the efficacy of aflibercept in a mouse model of proliferative diabetic retinopathy[J]. Investigative Ophthalmology & Visual Science, 2018, 59(9): 200-200.

Caution: Product has not been fully validated for medical applications. For research use only.

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