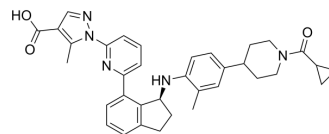


MGV354

Cat. No.:	HY-111516
Molecular Formula:	C ₃₅ H ₃₇ N ₅ O ₃
Molecular Weight:	575.7
Target:	Guanylate Cyclase
Pathway:	GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	MGV354 is a soluble guanylate cyclase (sGC) activator with EC ₅₀ s of <0.5 nM, and 5 nM in CHO and GTM-3 E cells, respectively [1][2].
IC₅₀ & Target	soluble guanylate cyclase ^{[1][2]}
In Vitro	MGV354 (0.1 nM-10 μM) treatment for 1 hour causes a dose-dependent increase in cGMP levels in normal human trabecular meshwork (NTM) cells (average EC ₅₀ =2.5±1.6 nM) following treatment with ODQ (20 μM). The average cGMP produced by MGV354 in human NTM cells is 46±28 nM. MGV354 (1 μM) causes a linear increase in intracellular cGMP levels in a time-dependent manner (assay conditions up to 3 hours) in NTM cells ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	MGV354 (Compound (+)-23) robustly lowers intraocular pressure in a cynomolgus model of elevated intraocular pressure over 24 h after a single topical ocular drop ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Ehara T, et al. The Discovery of (S)-1-(6-(3-((4-(1-(Cyclopropanecarbonyl)piperidin-4-yl)-2-methylphenyl)amino)-2,3-dihydro-1H-inden-4-yl)pyridin-2-yl)-5-methyl-1H-pyrazole-4-carboxylic Acid, a Soluble Guanylate Cyclase Activator Specifically Designed for Topical Ocular Delivery as a Therapy for Glaucoma. *J Med Chem*. 2018 Mar 22;61(6):2552-2570.
- [2]. Stacy R, et al. A Randomized, Controlled Phase I/II Study to Evaluate the Safety and Efficacy of MGV354 for Ocular Hypertension or Glaucoma. *Am J Ophthalmol*. 2018 Aug;192:113-123.
- [3]. Prasanna G, et al. A Novel Selective Soluble Guanylate Cyclase Activator, MGV354, Lowers Intraocular Pressure in Preclinical Models, Following Topical Ocular Dosing. *Invest Ophthalmol Vis Sci*. 2018 Apr 1;59(5):1704-1716.

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

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