
Product Data Sheet

Product Name: MGV354
Cat. No.: GC62616

Chemical Properties

Cas. No.

Formula $C_{35}H_{37}N_5O_3$ M.Wt 575.7

Solubility Storage Store at $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

Background

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].

MGV354 (0.1 nM-10 μ M) treatment for 1 hour causes a dose-dependent increase in cGMP levels in normal human trabecular meshwork (NTM) cells (average $EC_{50}=2.5\pm 1.6$ nM) following treatment with ODQ (20 μ M). The average cGMP produced by MGV354 in human NTM cells is 46 ± 28 nM. MGV354 (1 μ M) causes a linear increase in intracellular cGMP levels in a time-dependent manner (assay conditions up to 3 hours) in NTM cells[3].

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].

[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

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

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Efficacy of MG354 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, MG354, Lowers Intraocular Pressure in Preclinical Models, Following Topical Ocular Dosing. Invest Ophthalmol Vis Sci. 2018 Apr 1;59(5):1704-1716.

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