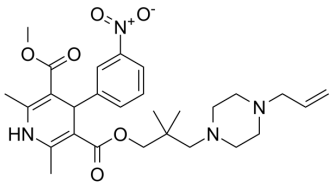
Iganidipine

Cat. No.:	HY-101685
CAS No.:	119687-33-1
Molecular Formula:	$C_{28}H_{38}N_4O_6$
Molecular Weight:	526.62
Target:	Calcium Channel
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Iganidipine is a Ca^{2+} antagonist.
IC_{50} & Target	Ca^{2+}[1]
In Vivo	Iganidipine (0.03% solution) significantly increases optic nerve head (ONH) tissue blood velocity (NB_{ONH}) by 8 to 10% in treated eyes after a single administration ($p<0.05$) or by 18 to 35% after 7-, 14-, or 21-day twicedaily administration in rabbits ($p<0.05$). In monkeys, 0.03% and 0.1% Iganidipine significantly increases NB_{ONH} in treated eyes by 20 and 41% after 7-day ($p<0.05$) twice-daily administration, respectively[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration [1]	Monkeys[1] Five adult cynomolgus monkeys (age, 5-8 years; weight, 3-5 kg; sex, 5 males) are used. All examinations are performed with the monkeys sitting in a modified monkey chair. On the first experimental day, after general anesthesia is induced by Ketamine hydrochloride at a dose of 8 to 10 mg/kg intramuscularly, pupil dilation is induced with one drop of Tropicamide in both eyes. The NB_{ONH}, IOP, blood pressure, pulse rate, SaO_2, and body temperature are measured at 9AM. Starting on the 2nd experimental day, Iganidipine (0.03% or 0.1%, 30 mL) is administered in one randomly chosen eye and vehicle solution into the other eye twice daily at 8AM and 8PM for 7 days. At 9AM on the 8th experimental day, the same measurements are repeated after general anesthesia and bilateral pupil dilation. After a 4-week interval, a second series of experiments is performed using a different Iganidipine concentration according to the same time schedule. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Ishii K, et al. Iganidipine, a new water-soluble Ca2+ antagonist: ocular and periocular penetration after instillation. Invest Ophthalmol Vis Sci. 2003 Mar;44(3):1169-77.

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

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