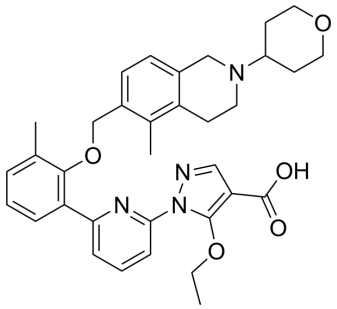
Avenciguat

Cat. No.:	HY-153092
CAS No.:	1579514-06-9
Molecular Formula:	$C_{34}H_{38}N_4O_5$
Molecular Weight:	582.69
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Avenciguat (BI-685509) is a potent and orally active sGC activator. Avenciguat restores cyclic guanosine monophosphate (cGMP) and improves functionality of nitric oxide (NO) pathways. Avenciguat can be used in research of chronic kidney disease (CKD) and diabetic kidney disease (DKD)[1].
In Vitro	Avenciguat increased cGMP in human and rat platelet-rich plasma treated with the heme-oxidant ODQ (HY-101255) with EC_{50} values are 467 nM and 304 nM, respectively[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Avenciguat (1, 3, 10, 30 mg/kg; p.o.) co-administered with Enalapril (HY-B0331) reduce proteinuria and incidence of glomerular sclerosis in a dose-dependent manner[1]. Avenciguat (30 mg/kg; p.o.) reduces tubulointerstitial fibrosis in rat unilateral ureteral obstruction (UUO) model[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	ZSF1 rat model[1]
Dosage:	1, 3, 10, 30 mg/kg; 3 mg/kg (enalapril)
Administration:	Oral administration; daily
Result:	Reduced proteinuria and incidence of glomerular sclerosis in a dose-dependent manner.

Animal Model:	rat UUO model[1]
Dosage:	30 mg/kg
Administration:	v
Result:	Reduced tubulointerstitial fibrosis in rat UUO model.

REFERENCES

[1]. Reinhart GA, et, al. The Novel, Clinical-Stage Soluble Guanylate Cyclase Activator BI 685509 Protects from Disease Progression in Models of Renal Injury and Disease. J Pharmacol Exp Ther. 2023 Mar;384(3):382-392.

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