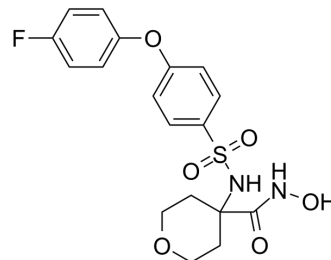


## CP-544439

Cat. No.:	HY-107013
CAS No.:	230954-09-3
Molecular Formula:	C <sub>18</sub> H <sub>19</sub> FN <sub>2</sub> O <sub>6</sub> S
Molecular Weight:	410.42
Target:	MMP
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	CP-544439 is a potent and orally active matrix metalloproteinase-13 (MMP-13) inhibitor with an IC <sub>50</sub> of 0.75 nM <sup>[1][2]</sup> .			
<b>IC<sub>50</sub> &amp; Target</b>	MMP-13 0.75 nM (IC <sub>50</sub> )	MMP-12 0.24 nM (IC <sub>50</sub> )	MMP-1 420 nM (IC <sub>50</sub> )	MMP-2 1.6 nM (IC <sub>50</sub> )
	MMP-3 16 nM (IC <sub>50</sub> )	MMP-8 1.4 nM (IC <sub>50</sub> )	MMP-9 12 nM (IC <sub>50</sub> )	MMP-14 7.4 nM (IC <sub>50</sub> )
<b>In Vivo</b>	In vivo studies using a hamster model, in which the cartilage collagen degradation was induced by intra-articular injection of recombinant human MMP-13, demonstrated that oral administration of CP-544439 inhibits degradation of the cartilage collagen with an ED <sub>50</sub> of 14 mg/kg and efficacious plasma concentrations ranging from 0.5 to 1.0 g/ml <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.			

### REFERENCES

[1]. Dalvie D, et al. Metabolism distribution and excretion of a matrix metalloproteinase-13 inhibitor, 4-[4-(4-fluorophenoxy)-benzenesulfonylamino]tetrahydropyran-4-carboxylic acid hydroxamide (CP-544439), in rats and dogs: assessment of the metabolic profile of CP-544439 in plasma and urine of humans. Drug Metab Dispos. 2008;36(9):1869-1883.

[2]. Reiter LA, et al. Pyran-containing sulfonamide hydroxamic acids: potent MMP inhibitors that spare MMP-1. Bioorg Med Chem Lett. 2004;14(13):3389-3395.

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

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