## **Product** Data Sheet

## COX-2-IN-26

 Cat. No.:
 HY-150550

 CAS No.:
 2413565-19-0

 Molecular Formula:
 C<sub>23</sub>H<sub>21</sub>N<sub>7</sub>OS<sub>3</sub>

 Molecular Weight:
 507.65

Target: COX

Pathway: Immunology/Inflammation

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

## **BIOLOGICAL ACTIVITY**

Description	COX-2-IN-26 is a potent, selective and orally active COX-2 inhibitor with IC $_{50}$ values of 10.61, 0.067, 1.96 $\mu$ M for COX-1, COX-2, 15-LOX, respectively. COX-2-IN-26 shows anti-inflammatory activity. COX-2-IN-26 shows gastrointestinal safety profile <sup>[1]</sup> .		
IC <sub>50</sub> & Target	COX-2 0.067 μM (IC <sub>50</sub> )	COX-1 10.61 μM (IC <sub>50</sub> )	15-LOX 1.96 μM (IC <sub>50</sub> )
In Vitro	COX-2-IN-26 (compound 16) shows significant COX-2 selectivity with an SI value of $158.36^{[1]}$ . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		
In Vivo	COX-2-IN-26 ( $28 \mu\text{M/kg}$ ) shows a potent anti-inflammatory activity in rats with edema inhibition relative to indomethacin of 102% and 119% in 4h and 3h, respectively <sup>[1]</sup> COX-2-IN-26 ( $10, 30, 50 \text{mg/kg}$ ; p.o.) shows GI safety profile with normal appearance for mucosa with intact surface epithelium and preserves glands but there is some congestion of the blood vessels in albino rats <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		

## **REFERENCES**

[1]. Maghraby MT, et al. Novel class of benzimidazole-thiazole hybrids: The privileged scaffolds of potent anti-inflammatory activity with dual inhibition of cyclooxygenase and 15-lipoxygenase enzymes. Bioorg Med Chem. 2020 Apr 1;28(7):115403.

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

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