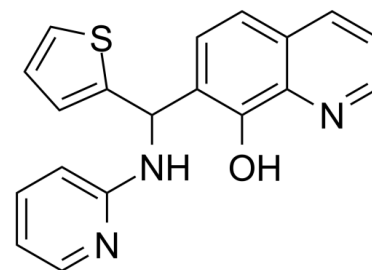


## Data Sheet

<b>Product Name:</b>	IMB-XH1
<b>Cat. No.:</b>	CS-4206
<b>CAS No.:</b>	292057-76-2
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>15</sub> N <sub>3</sub> OS
<b>Molecular Weight:</b>	333.41
<b>Target:</b>	Bacterial; Bcl-2 Family
<b>Pathway:</b>	Anti-infection; Apoptosis
<b>Solubility:</b>	DMSO : 33.33 mg/mL (99.97 mM; Need ultrasonic)



### BIOLOGICAL ACTIVITY:

IMB-XH1 is an inhibitor of myeloid cell factor 1 (**Mcl-1**)<sup>[1]</sup>. IMB-XH1 is a non-competitive **Delhi metallo-β-lactamase (NDM-1)** inhibitor. The **IC<sub>50</sub>s** of IMB-XH1 against metallo-β-lactamases NDM-1, IMP-4, ImiS and L1 are 0.4637 μM, 3.980 μM, 0.2287 μM and 1.158 μM, respectively<sup>[2]</sup>. **IC<sub>50</sub> & Target: Mcl-1**<sup>[1]</sup> **In Vitro:** IMB-XH1 (Compound 2) is a Mcl-1 inhibitor<sup>[1]</sup>. IMB-XH1 is screened out with the **IC<sub>50</sub>** value of 0.4637 μM at the concentration of 20 μg/mL. IMB-XH1 (20 μg/mL) can increase the sensitivity of E. coli BL21 (DE3) (pET-30a(+)-NDM-1) to ampicillin by more than 8 times. IMB-XH1 may have a broad spectrum of metallo-β-lactamases (MBLs) inhibitory activity. The combination of IMB-XH1 and Meropenem (MEM) may have potentials to treat infections caused by metallo-β-lactamases-positive, carbapenem-resistant Gram-negative pathogens<sup>[2]</sup>.

### References:

[1]. Richard DJ, et al. Hydroxyquinoline-derived compounds and analoguing of selective Mcl-1 inhibitors using a functional biomarker. Bioorg Med Chem. 2013 Nov 1;21(21):6642-9.

[2]. Jiangxue Han, et al. IMB-XH1 identified as a novel inhibitor of New Delhi metallo-β-lactamase-1.

### CAIndexNames:

8-Quinolinol, 7-[(2-pyridinylamino)-2-thienylmethyl]-

### SMILES:

OC1=C(N=CC=C2)C2=CC=C1C(NC3=CC=CC=N3)C4=CC=CS4

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

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