## **Product** Data Sheet

## Tyk2-IN-3

Cat. No.: HY-18709
CAS No.: 1779493-12-7

 $\label{eq:molecular} \textbf{Molecular Formula:} \qquad C_{25} H_{24} N_6 O_3 S_2$ 

Molecular Weight: 520.63
Target: JAK

Pathway: Epigenetics; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Stem Cell/Wnt

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

Analysis.

## **BIOLOGICAL ACTIVITY**

Description	Tyk2-IN-3 is a Tyk2 pseudokinase inhibitor, with an IC <sub>50</sub> of 485 nM.
IC <sub>50</sub> & Target	Tyk2 485 nM (IC <sub>50</sub> )
In Vivo	Tyk2-IN-3 (compound 1) is very potent against the Tyk2 pseudokinase (99% inhibition at 1 $\mu$ M) but lacks potency against all other kinases in the kinome assay panel except IKK (96% inhibition) and the JAK1 pseudokinase domain (99% inhibition at 1 $\mu$ M). No evidence of binding to the catalytic domain of Tyk2 or any other JAK family kinase is evident at 1 $\mu$ M, and subsequent enzymatic assays confirm the lack of activity against purified catalytic domains (IC <sub>50</sub> >>2 $\mu$ M). The pseudokinase domains of JAK2 and JAK3 are not part of the kinome screening panel. In the IL-23-stimulated kit225 T cell assay, Tyk2-IN-3 inhibits the stimulated response with an IC <sub>50</sub> of 485±143 nM (n=3) <sup>[1]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## **REFERENCES**

[1]. Tokarski JS, et al. Tyrosine Kinase 2-mediated Signal Transduction in T Lymphocytes Is Blocked by Pharmacological Stabilization of Its Pseudokinase Domain. J Biol Chem. 2015 Apr 24;290(17):11061-74.

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

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