



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Zuschläge

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- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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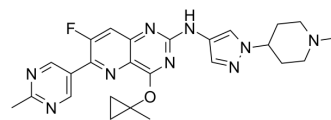
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## IRAK4-IN-14

Cat. No.:	HY-146112
CAS No.:	2667681-71-0
Molecular Formula:	C <sub>25</sub> H <sub>28</sub> FN <sub>9</sub> O
Molecular Weight:	489.55
Target:	IRAK
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	IRAK4-IN-14 (compound 28) is a potent, selective and orally active IRAK4 inhibitor with an IC <sub>50</sub> of 0.003 μM. IRAK4-IN-14 shows good PK parameters in rats and mouse. IRAK4-IN-14 shows synergistic in vitro activity against MyD88/CD79 double mutant ABC-DLBCL in combination with Acalabrutinib <sup>[1]</sup> .																
<b>IC<sub>50</sub> &amp; Target</b>	IRAK4 0.003 μM (IC <sub>50</sub> )																
<b>In Vitro</b>	IRAK4-IN-14 (compound 28) shows cell pIRAK4 potencies with an IC <sub>50</sub> of 0.11 μM <sup>[1]</sup> . IRAK4-IN-14 (compound 28) shows selectivity with IC <sub>50</sub> s of 0.003, 1.4, >8, >9, 0.053, 0.27, 0.76, 0.27 μM for IRAK4, IRAK1, BTK, FIt3, PI3Kδ, TRKa, TRKb, TRKc, respectively <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.																
<b>In Vivo</b>	IRAK4-IN-14 (i.v. or p.o.) shows good PK parameters with oral bioavailability of 66% for mouse <sup>[1]</sup> . Pharmacokinetic Parameters of IRAK4-IN-14 in Male Han Wistar rats, male CD1 mice, male Cynomolgus monkeys <sup>[1]</sup> . <table border="1" data-bbox="345 1339 1372 1953"> <thead> <tr> <th>parameter</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>A2B P<sub>app</sub></td> <td>31</td> </tr> <tr> <td>Efflux ratio</td> <td>1.4</td> </tr> <tr> <td>Solubility (μM)</td> <td>800</td> </tr> <tr> <td>Rat/mouse/monkey/human %free</td> <td>21/16/33/21</td> </tr> <tr> <td>Rat LM/H CL<sub>int</sub></td> <td>16/5.6</td> </tr> <tr> <td>Mouse LM/H CL<sub>int</sub></td> <td>13/11</td> </tr> <tr> <td>Minipig LM/H CL<sub>int</sub></td> <td>18/8.2</td> </tr> </tbody> </table>	parameter	Value	A2B P <sub>app</sub>	31	Efflux ratio	1.4	Solubility (μM)	800	Rat/mouse/monkey/human %free	21/16/33/21	Rat LM/H CL <sub>int</sub>	16/5.6	Mouse LM/H CL <sub>int</sub>	13/11	Minipig LM/H CL <sub>int</sub>	18/8.2
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Dog LM/H CL <sub>int</sub>		21/4.5
Monkey LM/H CL <sub>int</sub>		35/4.7
Rat	CL	15
	Vd <sub>ss</sub>	4.3
	t <sub>1/2</sub>	5.2
	F%	55%
Mouse	CL	17
	Vd <sub>ss</sub>	4.1
	t <sub>1/2</sub>	4.2
	F%	66%
Monkey	CL	68
	Vd <sub>ss</sub>	8.6
	t <sub>1/2</sub>	1.4

Male Han Wistar rats; 1 mg/kg i.v.; 2 mg/kg p.o.; Male CD1 mice; 0.5 mg/kg i.v.; 1 mg/kg p.o.; Male Cynomolgus monkeys; 1 mg/kg i.v.<sup>[1]</sup>.

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## REFERENCES

[1]. Degorce SL, et al. Improving metabolic stability and removing aldehyde oxidase liability in a 5-azaquinazoline series of IRAK4 inhibitors. *Bioorg Med Chem*. 2020 Dec 1;28(23):115815.

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

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