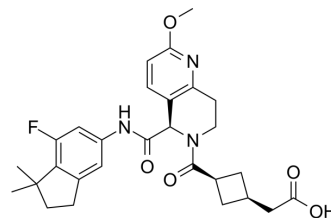


## TAK-828F

<b>Cat. No.:</b>	HY-111509
<b>CAS No.:</b>	1854901-94-2
<b>Molecular Formula:</b>	C <sub>28</sub> H <sub>32</sub> FN <sub>3</sub> O <sub>5</sub>
<b>Molecular Weight:</b>	509.57
<b>Target:</b>	ROR
<b>Pathway:</b>	Metabolic Enzyme/Protease
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	TAK-828F is a potent, selective, and orally available retinoic acid receptor-related orphan receptor $\gamma$ t (ROR $\gamma$ t) inverse agonist (binding IC <sub>50</sub> =1.9 nM, reporter gene IC <sub>50</sub> =6.1 nM). TAK-828F shows excellent ROR $\gamma$ t isoforms selectivity (>5000-fold selectivity against human ROR $\alpha$ and ROR $\beta$ ) <sup>[1]</sup> .								
<b>IC<sub>50</sub> &amp; Target</b>	IC <sub>50</sub> : 1.9 nM (ROR $\gamma$ t, binding IC <sub>50</sub> ), 6.1 nM (ROR $\gamma$ t, reporter gene IC <sub>50</sub> ) <sup>[1]</sup>								
<b>In Vivo</b>	<p>TAK-828F (0.3, 1, and 3 mg/kg; orally administered; b.i.d.; 28 days; in mice with IL-23-induced cytokine expression model) shows robust and dose-dependent inhibition of IL-17A expression with an ED<sub>80</sub> of 0.5 mg/kg<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td><b>Animal Model:</b></td> <td>Mice with IL-23-induced cytokine expression model<sup>[1]</sup></td> </tr> <tr> <td><b>Dosage:</b></td> <td>0.3, 1, and 3 mg/kg</td> </tr> <tr> <td><b>Administration:</b></td> <td>Orally administered; b.i.d.; 28 days</td> </tr> <tr> <td><b>Result:</b></td> <td>Showed robust and dose-dependent inhibition of IL-17A expression (ED<sub>80</sub>=0.5 mg/kg).</td> </tr> </table>	<b>Animal Model:</b>	Mice with IL-23-induced cytokine expression model <sup>[1]</sup>	<b>Dosage:</b>	0.3, 1, and 3 mg/kg	<b>Administration:</b>	Orally administered; b.i.d.; 28 days	<b>Result:</b>	Showed robust and dose-dependent inhibition of IL-17A expression (ED <sub>80</sub> =0.5 mg/kg).
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<b>Result:</b>	Showed robust and dose-dependent inhibition of IL-17A expression (ED <sub>80</sub> =0.5 mg/kg).								

### REFERENCES

[1]. Kono M, et al. Discovery of [ cis-3-(((5 R)-5-[(7-Fluoro-1,1-dimethyl-2,3-dihydro-1 H-inden-5-yl)carbamoyl]-2-methoxy-7,8-dihydro-1,6-naphthyridin-6(5 H)-yl)carbonyl)cyclobutyl]acetic Acid (TAK-828F) as a Potent, Selective, and Orally Available Novel Retinoic Acid Receptor-Related Orphan Receptor  $\gamma$ t Inverse Agonist. J Med Chem. 2018 Apr 12;61(7):2973-2988.

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

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