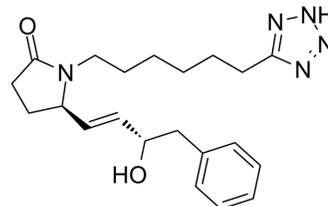


## TCS 2510

|                    |   |
|--------------------|---|
| Cat. No.:          | HY-108557   |
| CAS No.:           | 346673-06-1   |
| Molecular Formula: | C <sub>21</sub> H <sub>29</sub> N <sub>5</sub> O <sub>2</sub> |
| Molecular Weight:  | 383.49  |
| Target:            | Prostaglandin Receptor  |
| Pathway:           | GPCR/G Protein  |
| Storage:           | Solution, -20°C, 2 years                                      |



### BIOLOGICAL ACTIVITY

|                                     |   |               |                     |         |              |                 |      |         |  |               |                     |         |          |                 |      |
|-------------------------------------|---|---------------|---------------------|---------|--------------|-----------------|------|---------|--|---------------|---------------------|---------|----------|-----------------|------|
| <b>Description</b>                  | TCS 2510 is a selective EP4 agonist. TCS 2510 can be used for the research of metabolic diseases <sup>[1]</sup> .   |               |                     |         |              |                 |      |         |  |               |                     |         |          |                 |      |
| <b>IC<sub>50</sub> &amp; Target</b> | EP4 <sup>[1]</sup>  |               |                     |         |              |                 |      |         |  |               |                     |         |          |                 |      |
| <b>In Vitro</b>                     | <p>TCS 2510 (0.001~100 μM; GLUTag cells) stimulates glucagon like peptide 1 secretion. TCS2510 activates the Gas signaling pathway. TCS 2510 (10 μM; 2~24 h; GLUTag cells) increases the Gcg mRNA expression levels. TCS 2510 produces a concentration dependent increase in cAMP levels in GLUTag cells with EC<sub>50</sub> of 20 nM and the maximal stimulation of 60 % over the basal cAMP levels. The decrease in cell impedance in GLUTag cells observed with TCS 2510 is concentration dependent with IC<sub>50</sub> of 15 nM. TCS 2510 produces a concentration-dependent increase in glucagon like peptide 2 secretion in GLUTag cells<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>  |               |                     |         |              |                 |      |         |  |               |                     |         |          |                 |      |
| <b>In Vivo</b>                      | <p>TCS 2510 (0.1~10 mg/kg; p.o.) produces a dose-dependent elevation in plasma glucagon like peptide 1 levels in fasted mice measured 15 min after compound administration<sup>[1]</sup>.</p> <p>TCS 2510 (10 mg/kg; p.o.) increases plasma glucagon like peptide 1 levels up to 8-fold over the basal hormone levels<sup>[1]</sup>.</p> <p>TCS 2510 (1~10 mg/kg; p.o) affords a significant elevation in plasma glucagon like peptide 2 levels<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>Animal Model:</td> <td>Mice<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>0.1~10 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>P.o.</td> </tr> <tr> <td>Result:</td> <td>Produced a dose-dependent elevation in plasma glucagon like peptide 1 levels in fasted mice measured 15 min after compound administration.</td> </tr> </table><br><table border="1"> <tr> <td>Animal Model:</td> <td>Mice<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>10 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>P.o.</td> </tr> </table> | Animal Model: | Mice <sup>[1]</sup> | Dosage: | 0.1~10 mg/kg | Administration: | P.o. | Result: | Produced a dose-dependent elevation in plasma glucagon like peptide 1 levels in fasted mice measured 15 min after compound administration. | Animal Model: | Mice <sup>[1]</sup> | Dosage: | 10 mg/kg | Administration: | P.o. |
| Animal Model:                       | Mice <sup>[1]</sup>   |               |                     |         |              |                 |      |         |  |               |                     |         |          |                 |      |
| Dosage:                             | 0.1~10 mg/kg  |               |                     |         |              |                 |      |         |  |               |                     |         |          |                 |      |
| Administration:                     | P.o.  |               |                     |         |              |                 |      |         |  |               |                     |         |          |                 |      |
| Result:                             | Produced a dose-dependent elevation in plasma glucagon like peptide 1 levels in fasted mice measured 15 min after compound administration.  |               |                     |         |              |                 |      |         |  |               |                     |         |          |                 |      |
| Animal Model:                       | Mice <sup>[1]</sup>   |               |                     |         |              |                 |      |         |  |               |                     |         |          |                 |      |
| Dosage:                             | 10 mg/kg  |               |                     |         |              |                 |      |         |  |               |                     |         |          |                 |      |
| Administration:                     | P.o.  |               |                     |         |              |                 |      |         |  |               |                     |         |          |                 |      |

|         |   |
|---------|---|
| Result: | Increased plasma glucagon like peptide 1 levels up to 8-fold over the basal hormone levels. |
|---------|---|

|               |                     |
|---------------|---------------------|
| Animal Model: | Mice <sup>[1]</sup> |
|---------------|---------------------|

|         |            |
|---------|------------|
| Dosage: | 1~10 mg/kg |
|---------|------------|

|                 |      |
|-----------------|------|
| Administration: | P.o. |
|-----------------|------|

|         |  |
|---------|--|
| Result: | Afforded a significant elevation in plasma glucagon like peptide 2 levels. |
|---------|--|

## REFERENCES

[1]. Coskun T, et al. Activation of prostaglandin E receptor 4 triggers secretion of gut hormone peptides GLP-1, GLP-2, and PYY. *Endocrinology*. 2013;154(1):45-53.

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

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