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产品名称: TUG-891  
产品别名: TUG-891

| 生物活性:              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                   |             |             |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------|-------------|
| Description        | TUG-891 is a potent and selective agonist for the long chain free fatty acid (LCFA) receptor 4 (FFA4/GPR120).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                   |             |             |
| In Vitro           | TUG-891 displays similar signaling properties to the LCFA $\alpha$ -linolenic acid at human FFA4, including stimulation of $Ca^{2+}$ mobilization, $\beta$ -arrestin-1 and $\beta$ -arrestin-2 recruitment, and extracellular signal-regulated kinase phosphorylation. Activation of human FFA4 by TUG-891 also results in rapid phosphorylation and internalization of the receptor <sup>[1]</sup> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                   |             |             |
| Solvent&Solubility | <b>In Vitro:</b><br><b>DMSO : <math>\geq 180</math> mg/mL (493.95 mM)</b><br><br>* "≥" means soluble, but saturation unknown.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                   |             |             |
|                    | <b>Preparing Stock Solutions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Solvent Mass Concentration</b> | <b>1 mg</b> | <b>5 mg</b> |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1 mM                              | 2.7442 mL   | 13.7208 mL  |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5 mM                              | 0.5488 mL   | 2.7442 mL   |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 10 mM                             | 0.2744 mL   | 1.3721 mL   |
|                    | *请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液。一旦配成溶液, 请分装保存, 避免反复冻融造成的产品失效。<br>储备液的保存方式和期限: -80°C, 6 months; -20°C, 1 month。-80°C 储存时, 请在 6 个月内使用, -20°C 储存时, 请在 1 个月内使用。<br><b>In Vivo:</b><br>请根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都请先按照 In Vitro 方式配制澄清的储备液, 再依次添加助溶剂:<br>——为保证实验结果的可靠性, 澄清的储备液可以根据储存条件, 适当保存; 体内实验的工作液, 建议您现用现配, 当天使用; 以下溶剂前显示的百分比是指该溶剂在您配制终溶液中的体积占比; 如在配制过程中出现沉淀、析出现象, 可以通过加热和/或超声的方式助溶<br>1.请依序添加每种溶剂: 10% DMSO→40% PEG300 →5% Tween-80 → 45% saline<br>Solubility: $\geq 2.5$ mg/mL (6.86 mM); Clear solution<br>此方案可获得 $\geq 2.5$ mg/mL (6.86 mM, 饱和度未知) 的澄清溶液。<br>以 1 mL 工作液为例, 取 100 $\mu$ L 25.0 mg/mL 的澄清 DMSO 储备液加到 400 $\mu$ L PEG300 中, 混合均匀, 向上述体系中加入 50 $\mu$ L Tween-80, 混合均匀; 然后继续加入 450 $\mu$ L 生理盐水定容至 1 mL。<br><br>2.请依序添加每种溶剂: 10% DMSO→ 90% (20% SBE- $\beta$ -CD in saline)<br>Solubility: $\geq 2.5$ mg/mL (6.86 mM); Clear solution<br>此方案可获得 $\geq 2.5$ mg/mL (6.86 mM, 饱和度未知) 的澄清溶液。<br>以 1 mL 工作液为例, 取 100 $\mu$ L 25.0 mg/mL 的澄清 DMSO 储备液加到 900 $\mu$ L 20% 的 SBE- $\beta$ -CD 生理盐水水溶液中, 混合均匀。<br><br>3.请依序添加每种溶剂: 10% DMSO →90% corn oil |                                   |             |             |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                   |             |             |
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|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            | <p>Solubility: <math>\geq 2.5</math> mg/mL (6.86 mM); Clear solution</p> <p>此方案可获得 <math>\geq 2.5</math> mg/mL (6.86 mM, 饱和度未知) 的澄清溶液, 此方案不适用于实验周期在半个月以上的实验。</p> <p>以 1 mL 工作液为例, 取 100 <math>\mu</math>L 25.0 mg/mL 的澄清 DMSO 储备液加到 900 <math>\mu</math>L 玉米油中, 混合均匀。</p> |
| References | <p>[1]. Hudson BD, et al. The pharmacology of TUG-891, a potent and selective agonist of the free fatty acid receptor 4 (FFA4/GPR120), demonstrates both potential opportunity and possible challenges to therapeutic agonism. Mol Pharmacol. 2013 Nov;84(5):710-25</p>   |



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