MedChemExpress

## Product Data Sheet

UBP301

| Cat. No.: | $\mathrm{HY}-107606$ |
| :--- | :--- |
| CAS No.: | $569371-10-4$ |
| Molecular Formula: | $\mathrm{C}_{15} \mathrm{H}_{14} \mathrm{IN}_{3} \mathrm{O}_{6}$ |
| Molecular Weight: | 459.19 |
| Target: | iGluR |
| Pathway: | Membrane Transporter/Ion Channel; Neuronal Signaling |
| Storage: | Analysis. |

## SOLVENT \& SOLUBILITY

In Vitro
DMSO : $100 \mathrm{mg} / \mathrm{mL}$ (217.77 mM; Need ultrasonic)

|  | Solvent Mass |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Concentration | 1 mg | 5 mg | 10 mg |  |
| Preparing |  |  |  |  |
| Stock Solutions | 1 mM | 2.1777 mL | 10.8887 mL | 21.7775 mL |
|  | 5 mM | 0.4355 mL | 2.1777 mL | 4.3555 mL |
|  | 10 mM | 0.2178 mL | 1.0889 mL | 2.1777 mL |

Please refer to the solubility information to select the appropriate solvent.

In Vivo 1. Add each solvent one by one: $10 \%$ DMSO $\gg 40 \%$ PEG300 $\gg 5 \%$ Tween- $80 \gg 45 \%$ saline Solubility: $\geq 5 \mathrm{mg} / \mathrm{mL}$ ( 10.89 mM ); Clear solution
2. Add each solvent one by one: $10 \%$ DMSO >> $90 \%$ ( $20 \%$ SBE- $\beta-C D$ in saline) Solubility: $\geq 5 \mathrm{mg} / \mathrm{mL}(10.89 \mathrm{mM})$; Clear solution
3. Add each solvent one by one: $10 \%$ DMSO >> 90\% corn oil

Solubility: $\geq 5 \mathrm{mg} / \mathrm{mL}(10.89 \mathrm{mM})$; Clear solution

BIOLOGICAL ACTIVITY

| Description | UBP301 is a potent and selective antagonist of kainate receptor with $I_{50}$ and $K_{D}$ of $164 \mu \mathrm{M}$ and $5.94 \mu \mathrm{M}$, respectively. <br>  <br> UBP301 has -30-fold selectivity of kainate receptor over AMPA receptor. UBP301 is the derivative of willardiine ${ }^{[1]}$. |
| :--- | :--- |
| IC $_{50}$ \& Target | $164 \mu \mathrm{M}$ (kainate receptor) ${ }^{[1]}$ |

## REFERENCES

[1]. More JC, et al. Structural requirements for novel willardiine derivatives acting as AMPA and kainate receptor antagonists. Br J Pharmacol. 2003;138(6):1093-1100.

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

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