Product Data Sheet
MedChemExpress

BPAM344

| Cat. No.: | HY-129086 |
| :---: | :---: |
| CAS No.: | 1204572-55-3 |
| Molecular Formula: | $\mathrm{C}_{10} \mathrm{H}_{11} \mathrm{FN}_{2} \mathrm{O}_{2} \mathrm{~S}$ |
| Molecular Weight: | 242.27 |
| Target: | iGlur |
| Pathway: | Membrane Transporter/Ion Channel; Neuronal Signaling |
| Storage: | $4^{\circ} \mathrm{C}$, protect from light |
|  | * In solvent : $-80^{\circ} \mathrm{C}, 6$ months; $-20^{\circ} \mathrm{C}, 1$ month (protect from light) |



## SOLVENT \& SOLUBILITY

In Vitro
DMSO : $250 \mathrm{mg} / \mathrm{mL}$ (1031.91 mM; Need ultrasonic)

|  | Solvent <br> Concentration | 1 mg | 5 mg | 10 mg |
| :---: | :---: | :---: | :---: | :---: |
| Preparing <br> Stock Solutions | 1 mM | 4.1276 mL | 20.6381 mL | 41.2763 mL |
|  | 5 mM | 0.8255 mL | 4.1276 mL | 8.2553 mL |
|  | 10 mM | 0.4128 mL | 2.0638 mL | 4.1276 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 >> 5\% Tween- $80 \gg 45 \%$ saline Solubility: $\geq 2.08 \mathrm{mg} / \mathrm{mL}(8.59 \mathrm{mM})$; Clear solution
2. Add each solvent one by one: $10 \%$ DMSO >> $90 \%$ ( $20 \%$ SBE- $\beta-C D$ in saline)

Solubility: $\geq 2.08 \mathrm{mg} / \mathrm{mL}(8.59 \mathrm{mM})$; Clear solution
3. Add each solvent one by one: $10 \%$ DMSO >> $90 \%$ corn oil

Solubility: $\geq 2.08 \mathrm{mg} / \mathrm{mL}(8.59 \mathrm{mM})$; Clear solution

## BIOLOGICAL ACTIVITY

Description

In Vitro

BPAM344 is a kainate receptor (KAR) subunits GluK1b, GluK2a, and GluK3a positive allosteric modulator (PAM) ${ }^{[1]}$.

BPAM344 potentiates glutamate-evoked currents of GluK2a 21-fold at the highest concentration tested ( $200 \mu \mathrm{M}$ ), with an EC 50 of $79 \mu \mathrm{M}$. BPAM344 markedly decreases desensitization kinetics (from 5.5 to 775 ms ), whereas it only has a minor effect on deactivation kinetics ${ }^{[1]}$.

BPAM344 (100 $\mu \mathrm{M}$ ) also potentiates the peak current amplitude of KAR subunits GluK3a (59-fold), GluK2a (15-fold), GluK1b
(5-fold), as well as the AMPA receptor subunit GluA1i (5-fold) ${ }^{[1]}$.
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

[1]. Anja Probst Larsen, et al. Identification and Structure-Function Study of Positive Allosteric Modulators of Kainate Receptors. Mol Pharmacol. 2017 Jun;91(6):576-585.

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

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