# FPR-A14

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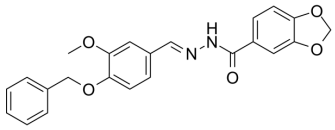
|---|---|
| **Cat. No.:** | HY-103472 |
| **CAS No.:** | 329691-12-5 |
| **Molecular Formula:** | $C_{23}H_{20}N_2O_5$ |
| **Molecular Weight:** | 404.42 |
| **Target:** | Formyl Peptide Receptor (FPR) |
| **Pathway:** | GPCR/G Protein |
| **Storage:** | 4°C, protect from light<br>* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light) |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 125 mg/mL (309.08 mM; ultrasonic and warming and heat to 60°C)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 2.4727 mL | 12.3634 mL | 24.7268 mL |
| | 5 mM | 0.4945 mL | 2.4727 mL | 4.9454 mL |
| | 10 mM | 0.2473 mL | 1.2363 mL | 2.4727 mL |

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

## BIOLOGICAL ACTIVITY

**Description**

FPR-A14 is a potent formyl peptide receptor (FPR) agonist. FPR-A14 is a potent activator of neutrophil $Ca^{2+}$ mobilization and chemotaxis with $EC_{50}$s of 630 nM and 42 nM, respectively. FPR-A14 induces cell differentiation[1][2].

**In Vitro**

FPR-A14 (compound 14) activates $Ca^{2+}$ release with an $EC_{50}$ of 630 nM in human neutrophils. FPR-A14 is a neutrophil chemoattractant and dose-dependently induces neutrophil migration with an $EC_{50}$ value of 42 nM[1].

FPR-A14 (1-10 μM; 48h) elicites a significant increase in % cell differentiation versus controls at concentrations of 4μM (32.0%), 6μM (64.9%), 8μM (89.1%) and 10μM (93.3%) in mouse neuroblastoma N2a cells. FPRa14 (100μM) produces similar effects in IMR-32 and SH-SY5Y cells[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

[1]. Igor A Schepetkin, et al. High-throughput screening for small-molecule activators of neutrophils: identification of novel N-formyl peptide receptor agonists. Mol Pharmacol. 2007 Apr;71(4):1061-74.

[2]. Peter J G Cussell, et al. The formyl peptide receptor agonist FPRa14 induces differentiation of Neuro2a mouse neuroblastoma cells into multiple distinct morphologies which can be specifically. inhibited with FPR antagonists and FPR knockdown using siRNA. PLoS One. 2019 Jun 6;14(6):e0217815.



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