WRW4

Cat. No.: HY-P1119

CAS No.: 878557-55-2

Molecular Formula: $C_{61}H_{65}N_{15}O_6$

Molecular Weight: 1104.27

Sequence Shortening: WRWWWW-NH2

Target: Formyl Peptide Receptor (FPR)

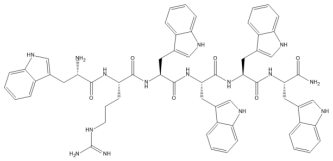
Pathway: GPCR/G Protein

Storage: Protect from light, stored under nitrogen

Powder -80°C 2 years

-20°C 1 year

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (226.39 mM; Need ultrasonic)

H_2O : < 0.1 mg/mL (ultrasonic) (insoluble)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	0.9056 mL	4.5279 mL	9.0558 mL
	5 mM	0.1811 mL	0.9056 mL	1.8112 mL
	10 mM	0.0906 mL	0.4528 mL	0.9056 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 6.25 mg/mL (5.66 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 6.25 mg/mL (5.66 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 6.25 mg/mL (5.66 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

WRW4, a specific formyl peptide receptor-like 1 (FPRL1) antagonist, inhibits WKYMVm binding to FPRL1 with an IC_{50} of 0.23 μM. WRW4 specifically inhibits the increase in intracellular calcium by the FPRL1 agonists MMK-1, amyloid beta42 (Abeta42) peptide, and F peptide[1].

In Vitro	WRW4 inhibits Abeta42 peptide-induced superoxide generation and chemotactic migration of neutrophils, and also completely inhibits the internalization of Abeta42 peptide in human macrophages. WRW4 specifically blocks ERK phosphorylation downstream of FPRL1 by WKYMVm[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cancer Res. 2022 Aug 16;82(16):2887-2903.
- J Agric Food Chem. 2022 Aug 17.

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REFERENCES

[1]. Bae YS, et al. Identification of peptides that antagonize formyl peptide receptor-like 1-mediated signaling. J Immunol. 2004;173(1):607-614.

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