WKYMVM-NH2 TFA

Cat. No.: HY-P1121A

CAS No.: 1435781-74-0

Molecular Formula: $C_{43}H_{62}F_3N_9O_9S_2$

Molecular Weight: 970.13

Sequence Shortening: WKYMVM-NH2

Target: Formyl Peptide Receptor (FPR)

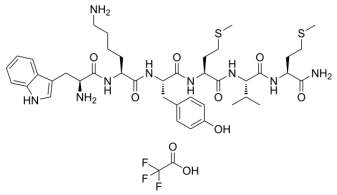
Pathway: GPCR/G Protein

Storage: Sealed storage, away from moisture

Powder -80°C 2 years

-20°C 1 year

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 12.5 mg/mL (12.88 mM; Need ultrasonic)

Preparing Stock Solutions	Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
	1 mM	1.0308 mL	5.1539 mL	10.3079 mL
	5 mM	0.2062 mL	1.0308 mL	2.0616 mL
	10 mM	0.1031 mL	0.5154 mL	1.0308 mL

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

BIOLOGICAL ACTIVITY

Description

WKYMVM-NH2 TFA is a potent N-formyl peptide receptor (FPR1) and FPRL1/2 agonist, also activates several leukocyte effector functions such as chemotaxis, mobilization of complement receptor-3, and activation of the NADPH oxidase[1][2][3].

In Vitro

WKYMVM-NH2 TFA (10-1000 nM; 24 hours) induces Caco-2 cells proliferation[3].

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

Cell Proliferation Assay[3]

Cell Line:	Caco-2 cells (the intestinal epithelial cells)
Concentration:	0 nM, 10 nM, 100 nM, 1000 nM
Incubation Time:	24 hours
Result:	Induced cell proliferation.

In Vivo

WKYMVM-NH2 TFA (8 mg/kg; six times; for 5 days) ameliorates DSS-induced ulcerative colitis[3].
WKYMVM-NH2 TFA affects cytokine (IL-17, IFN-γ, IL-6, IL-1β and TNF-α) profiles in the DSS colitis model[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Six-week-old C57BL/6 mice, DSS model[3]
Dosage:	8 mg/kg
Administration:	Subcutaneously injected, six subcutaneous administrations at 12-h intervals, for 5 days
Result:	Attenuated the DSS-induced increase in the bleeding score and the stool score.

REFERENCES

[1]. Christophe T, et al. The synthetic peptide Trp-Lys-Tyr-Met-Val-Met-NH2 specifically activates neutrophils through FPRL1/lipoxin A4 receptors and is an agonist for the orphan monocyte-expressed chemoattractant receptor FPRL2. J Biol Chem. 2001 Jun 15;276(24):21585-93.

[2]. Christophe T, et al. Phagocyte activation by Trp-Lys-Tyr-Met-Val-Met, acting through FPRL1/LXA4R, is not affected by lipoxin A4. Scand J Immunol. 2002 Nov;56(5):470-6.

[3]. Sang Doo Kim, et al. The immune-stimulating peptide WKYMVm has therapeutic effects against ulcerative colitis. Exp Mol Med. 2013 Sep; 45(9): e40.

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