Kisspeptin-10, human TFA

Cat. No.: HY-P0254A

Molecular Formula: $C_{63}H_{83}N_{17}O_{14}.C_2HF_3O_2$

Molecular Weight: 1416.46

Sequence Shortening: YNWNSFGLRF-NH2

Target: Kisspeptin Receptor

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)

YNWNSFGLRF-NH_2 (TFA salt)

SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (70.60 mM; Need ultrasonic)
H_2O : 4 mg/mL (2.82 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	0.7060 mL	3.5299 mL	7.0599 mL
5 mM	0.1412 mL	0.7060 mL	1.4120 mL
10 mM	0.0706 mL	0.3530 mL	0.7060 mL

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

BIOLOGICAL ACTIVITY

Description

Kisspeptin-10, human TFA is a potent vasoconstrictor and inhibitor of angiogenesis. Kisspeptin-10, human TFA acts as a tumor metastasis suppressor via its receptor GPR54. Kisspeptin-10-GPR54 system plays an important role in embryonic kidney development. Kisspeptin-10/GPR54 signaling induces osteoblast differentiation via NFATc4-mediated BMP2 expression[1].

IC_{50} & Target

GPR54[1]
Angiogenesis[1]

In Vitro

Kisspeptin-10 (KP-10) and its receptor GPR54 are key components in the regulation of GnRH secretion in humans and other mammals. Kisspeptin-10 protein binds to GPR54. Activation of Kisspeptin-10 suppresses pulmonary human melanoma and Kisspeptin-10 is a metastasis suppressor in breast cancer cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Intravenous infusion of kisspeptin-10 (7.5, 35, and 100 nM) induces a dose-dependent increase in LH secretion. The

	stimulatory effect of kisspeptin-10 (100 n nM) on LH secretion is blocked by the GnRH antagonist cetrorelix, precluding a singular action on gonadotropes[4]. Kisspeptin-10 inhibits angiogenesis in vivo. Kp-10 inhibits tumor growth in SCID mice xenografted with human prostate cancer cells (PC-3) through inhibiting tumor angiogenesis[5]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Son HE, et al. Kisspeptin-10 (KP-10) stimulates osteoblast differentiation through GPR54-mediated regulation of BMP2 expression and activation. Sci Rep. 2018 Feb 1;8(1):2134.

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