Product Data Sheet

Inhibitors • Screening Libraries • Proteins

Hepcidin-1 (mouse) (TFA)

Cat. No.: Molecular Formula:	HY-P4373A C,H.,.,N.,,O.,,S.,:XC.,HF.,O.,		
Sequence:	Asp-Thr-Asn-Phe-Pro-Ile-Cys-Ile-Phe-Cys-Cys-Lys-Cys-Cys-Asn-Asn-Ser-Gln-Cys-Gly-Il e-Cys-Cys-Lys-Thr (Disulfide bridge: Cys7-Cys23,Cys10-Cys22,Cys11-Cys19,Cys13-Cys1 4)		
Sequence Shortening:	DTNFPICIFCCKCCNNSQCGICCKT (Disulfide bridge: Cys7-Cys23,Cys10-Cys22,Cys11-Cy s19,Cys13-Cys14)		
Target:	Cathepsin; MMP		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Sealed storage, away from moisture and light Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)		

SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 100 mg/mL (Need ultrasonic)
In Vitro	H ₂ O : 100 mg/mL (Need ultrasoni

BIOLOGICAL ACTIV	ІТҮ ————		
Description	Hepcidin-1 (mouse) TFA is an endogenous peptide hormone involved in the regulation of iron homeostasis. Hepcidin-1 (mouse) TFA upregulates mRNA levels of TRAP, cathepsin K, and MMP-9 and increases TRAP-5b protein secretion. Hepcidin-1 (mouse) TFA downregulates the level of FPN1 protein and increases intracellular iron. Hepcidin-1 (mouse) TFA facilitates osteoclast differentiation ^[1] .		
IC ₅₀ & Target	MMP-9	cathepsin K	
In Vitro	Hepcidin-1 (mouse) TFA (200-800 nM, 4 days) facilitates RANKL (50 ng/mL)-induced differentiation of raw264.7 cells ^[1] . Hepcidin-1 (mouse) TFA (0-800 nM, 4 days) up-regulates the expression of TRAP, CTK, and MMP-9 mRNA ^[1] . Hepcidin-1 (mouse) TFA (0-800 nM, 20 h) increases the Level of Trap-5b protein and decreased Ferroportin 1 (FPN1) protein in RAW264.7 cells ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Western Blot Analysis ^[1]		
	Cell Line:	RAW264.7 cells	
	Concentration:	0, 200, 400, or 800 nM	
	Incubation Time:	20 h	
	Result:	Decreased Ferroportin 1 (FPN1) protein.	

RT-PCR ^[1]	
Cell Line:	RAW264.7 cells
Concentration:	0, 200, 400, or 800 nM
Incubation Time:	4 days
Result:	Increased the gene expression of TRAP, CTK, and MMP-9 in a dose-dependent manner.

REFERENCES

[1]. Zhao GY, et al. Effects of mouse hepcidin 1 treatment on osteoclast differentiation and intracellular iron concentration. Inflammation. 2015 Apr;38(2):718-27.

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

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