

# Product Data Sheet

## $\beta$ -Melanocyte Stimulating Hormone (MSH), human TFA

Cat. No.:	HY-P1504A					
Molecular Formula:	$C_{120}H_{175}F_{3}N_{34}O_{37}S$					
Molecular Weight:	2774.94					
Target:	Melanocortin Receptor AEKKDEGPYRMEHFRWGSPPKD (TFA s:					
Pathway:	GPCR/G Protein; Neuronal Signaling					
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 <sub>2</sub> O : 10	H <sub>2</sub> O : 100 mg/mL (36.04 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg	
		1 mM	0.3604 mL	1.8018 mL	3.6037 mL	
		5 mM	0.0721 mL	0.3604 mL	0.7207 mL	
		10 mM	0.0360 mL	0.1802 mL	0.3604 mL	
	Please refer to the sol	lubility information to select the app	propriate solvent.			
In Vivo	1. Add each solvent o Solubility: 100 mg	one by one: PBS /mL (36.04 mM); Clear solution; Nee	d ultrasonic			

BIOLOGICAL ACTIVITY					
Description	β-Melanocyte Stimulating Hormone (MSH), human TFA, a 22-residue peptide, acts as an endogenous melanocortin-4 receptor (MC4-R) agonist <sup>[1]</sup> .				
IC <sub>50</sub> & Target	Melanocortin-4 receptor (MC4-R) <sup>[1]</sup>				
In Vitro	β-Melanocyte Stimulating Hormone (MSH), human (β-MSH) has high affinity at both human MC4-R transfected into CHO cells (K <sub>i</sub> =11.4±0.4 nM) and MC4-R in rat hypothalamic homogenates (K <sub>i</sub> =5.0±0.4 nM) <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.				

### REFERENCES

[1]. Harrold JA, et al. beta-MSH: a functional ligand that regulated energy homeostasis via hypothalamic MC4-R? Peptides. 2003 Mar;24(3):397-405.

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

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