

## MANS peptide TFA

<b>Cat. No.:</b>	HY-P10218A	
<b>Molecular Formula:</b>	C <sub>111</sub> H <sub>184</sub> N <sub>30</sub> O <sub>35-x</sub> C <sub>2</sub> HF <sub>3</sub> O <sub>2</sub>	
<b>Sequence:</b>	{Myristic acid-Gly}-Ala-Gln-Phe-Ser-Lys-Thr-Ala-Ala-Lys-Gly-Glu-Ala-Ala-Ala-Glu-Arg-Pro-Gly-Glu-Ala-Ala-Val-Ala	{Myristic acid-Gly}-Ala-Gln-Phe-Ser-Lys-Thr-Ala-Ala-Lys-Gly-Glu-Ala-Ala-Ala-Glu-Arg-Pro-Gly-Glu-Ala-Ala-Val-Ala (TFA salt)
<b>Sequence Shortening:</b>	{Myristic acid-Gly}-AQFSKTAAKGEEAAERPGEAAVA	
<b>Target:</b>	PKC	
<b>Pathway:</b>	Epigenetics; TGF-beta/Smad	
<b>Storage:</b>	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

<b>In Vitro</b>	DMSO : 13.3 mg/mL (Need ultrasonic)
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### BIOLOGICAL ACTIVITY

<b>Description</b>	MANS peptide TFA is the TFA salt form of MANS peptide (HY-P10218). MANS peptide TFA is an inhibitor for myristoylated alanine-rich C kinase substrate (MARCKS), which competes with MARCKS in cells for membrane binding, and thus inhibits the stimulation of mucin secretion and tumor metastasis <sup>[1]</sup> .
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<b>In Vitro</b>	<p>MANS peptide TFA (0-100 μM, 12-24 h) inhibits migration and invasion of lung cancer cells CL1-0/F3, CL1-5, PC9 and A549 without causing toxicity to normal cells<sup>[1]</sup>.</p> <p>MANS peptide TFA (0-100 μM, 16 h) inhibits MARCKS phosphorylation and PI3K and AKT phosphorylation, leads to downstream changes in Slug and E-cadherin expression levels, prevents the loss of cell-cell adhesion, alters epithelial-mesenchymal transition (EMT) characteristics of cancer cells, and thus decreases tumor metastasis<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
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#### Cell Migration Assay <sup>[1]</sup>

Cell Line:	CL1-0/F3, CL1-5 and PC9
Concentration:	0-100 μM
Incubation Time:	12-24 h
Result:	Inhibited migration.

#### Western Blot Analysis<sup>[1]</sup>

Cell Line:	CL1-0/F3, CL1-5, PC9 and NHBE
Concentration:	0-100 μM

	Incubation Time:	16 h
	Result:	Upregulated levels of E-cadherin, downregulated levels of Slug. Suppressed MARCKS phosphorylation and AKT/Slug pathway.
<b>In Vivo</b>	MANS peptide TFA (50 nmol/injection, ip, every 3 days for 6 injection) inhibits tumor metastasis, without affecting tumorigenesis in PC9 xenograft NOD/SCID mice model <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	NOD/SCID mice model <sup>[1]</sup>
	Dosage:	50 nmol/injection
	Administration:	Ip, every 3 days for 6 times
	Result:	Suppressed micrometastatic lesions.

## REFERENCES

[1]. Chen CH, et al., A peptide that inhibits function of Myristoylated Alanine-Rich C Kinase Substrate (MARCKS) reduces lung cancer metastasis. *Oncogene*. 2014 Jul 10;33(28):3696-706.

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

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