

## (D-Trp12,Tyr34)-pTH (7-34) amide (bovine)

<b>Cat. No.:</b>	HY-P2426		
<b>CAS No.:</b>	118102-98-0		
<b>Molecular Formula:</b>	C <sub>165</sub> H <sub>251</sub> N <sub>49</sub> O <sub>40</sub> S <sub>2</sub>		
<b>Molecular Weight:</b>	3625.25		
<b>Sequence:</b>	Phe-Met-His-Asn-Leu-{d-Trp}-Lys-His-Leu-Ser-Ser-Met-Glu-Arg-Val-Glu-Trp-Leu-Arg-Lys-Lys-Leu-Gln-Asp-Val-His-Asn-Tyr-NH <sub>2</sub>		
<b>Sequence Shortening:</b>	FMHNL-{d-Trp}-KHLSSMERVEWLRKKLQDVHNY-NH <sub>2</sub>		
<b>Target:</b>	Thyroid Hormone Receptor		
<b>Pathway:</b>	Others		
<b>Storage:</b>	Powder	-80°C	2 years
		-20°C	1 year
	In solvent	-80°C	6 months
		-20°C	1 month

 FMHNL-{d-Trp}-KHLSSMERVEWLRKKLQDVHNY-NH<sub>2</sub>

### SOLVENT & SOLUBILITY

#### In Vitro

 H<sub>2</sub>O : 25 mg/mL (6.90 mM); Need ultrasonic)

Preparing Stock Solutions	Solvent	1 mg	5 mg	10 mg
	Concentration			
1 mM		0.2758 mL	1.3792 mL	2.7584 mL
5 mM		0.0552 mL	0.2758 mL	0.5517 mL
10 mM		---	---	---

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

### BIOLOGICAL ACTIVITY

#### Description

(D-Trp12,Tyr34)-pTH (7-34) amide (bovine) is a potent and competitive antagonist of parathyroid hormone (PTH), with a K<sub>i</sub> of 69 nM in bovine renal cortical membrane. (D-Trp12,Tyr34)-pTH (7-34) amide (bovine) can be used for growth and development regulation<sup>[1][2]</sup>.

#### IC<sub>50</sub> & Target

 Ki: 69 nM (PTH)<sup>[1]</sup>

#### In Vitro

(D-Trp12,Tyr34)-pTH (7-34) amide (0.05-10 μM) causes a concentration-dependent inhibition of PTHrP or PTH-stimulated cAMP formation in opossum kidney (OK) cells<sup>[2]</sup>.

(D-Trp12,Tyr34)-pTH (7-34) amide (0.1-10 μM) attenuates inhibition of NapiT promoted by 1 nM of either PTHrP or PTH<sup>[2]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**

(D-Trp12,Tyr34)-pTH (7-34) amide (1 mg/mL once, 0.1 mg/mL for 6 h; i.v.) has no significant effect on serum calcium levels in hypercalcemic athymic nude mice bearing a human squamous cell carcinoma of the lung<sup>[3]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**REFERENCES**

- [1]. Goldma ME, et, al. A new highly potent parathyroid hormone antagonist: [D-Trp12,Tyr34]bPTH-(7-34)NH<sub>2</sub>. *Endocrinology*. 1988 Nov; 123(5): 2597-9.
- [2]. Pizurki L, et, al. Inhibition by (D-Trp12,Tyr34)bPTH(7-34)amide of PTH and PTHrP effects on Pi transport in renal cells. *Am J Physiol*. 1990 Aug; 259(2 Pt 2): F389-92.
- [3]. Kukreja SC, Inactivation by plasma may be responsible for lack of efficacy of parathyroid hormone antagonists in hypercalcemia of malignancy. *Endocrinology*. 1994 May; 134(5): 2184-8.

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

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