



# SZABO SCANDIC

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### Zuschläge

- Mindermengenzuschlag
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### SZABO-SCANDIC HandelsgmbH

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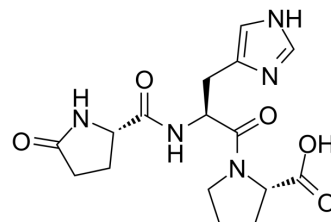
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## Thyrotropin-Releasing Hormone (TRH), Free Acid

<b>Cat. No.:</b>	HY-P1529
<b>CAS No.:</b>	24769-58-2
<b>Molecular Formula:</b>	C <sub>16</sub> H <sub>21</sub> N <sub>5</sub> O <sub>5</sub>
<b>Molecular Weight:</b>	363.37
<b>Sequence:</b>	{pGlu}-His-Pro
<b>Sequence Shortening:</b>	{pGlu}-HP
<b>Target:</b>	Others
<b>Pathway:</b>	Others
<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>	H <sub>2</sub> O : 100 mg/mL (275.20 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	2.7520 mL	13.7601 mL	27.5202 mL
		5 mM	0.5504 mL	2.7520 mL	5.5040 mL
10 mM		0.2752 mL	1.3760 mL	2.7520 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: PBS Solubility: 100 mg/mL (275.20 mM); Clear solution; Need ultrasonic</li> <li>Add each solvent one by one: Saline Solubility: 10 mg/mL (27.52 mM); Clear solution; Need ultrasonic</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	Thyrotropin-Releasing Hormone (TRH), Free Acid (TRH-OH) is a physiological metabolite of Thyrotropin-Releasing Hormone.
<b>In Vitro</b>	TRH degradation products have been shown to be associated with a number of endocrine- and central nervous system-related biological functions. TRH (pGlu-His-Pro-NH <sub>2</sub> ) can be enzymatically degraded in plasma and brain tissue to yield TRH-OH. TRH and hGHRH stimulate the release of [ <sup>3</sup> H]GH into the culture medium to 435 and 464%, respectively, when compared to the control, but TRH-OH has no effect <sup>[1]</sup> . TRH-OH, produced after cleavage of the C-terminal amide group by a specific proline endopeptidase, is one of the most stable derivatives of TRH and is found at high levels in numerous brain

regions. TRH-OH inhibits Na<sup>+</sup> channel activity in mammalian septal neurons. In about 60% of the cells tested, TRH-OH at concentrations between 0.01 and 2.5 μM produces a dose-dependent reversible attenuation of Na<sup>+</sup> currents. With 2 μM TRH-OH, peak Na<sup>+</sup> current amplitude is reduced by 20-50%<sup>[2]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## CUSTOMER VALIDATION

- SSRN. 2023 Aug 30.

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## REFERENCES

[1]. Kagabu Y, et al. Effects of thyrotropin-releasing hormone and its metabolites, Cyclo(His-Pro) and TRH-OH, on growth hormone and prolactin synthesis in primary cultured pituitary cells of the common carp, *Cyprinus carpio*. *Gen Comp Endocrinol*. 1998 Sep;111(

[2]. López-Barneo J, et al. Thyrotropin-releasing-hormone (TRH) and its physiological metabolite TRH-OH inhibit Na<sup>+</sup> channel activity in mammalian septal neurons. *Proc Natl Acad Sci U S A*. 1990 Oct;87(20):8150-4.

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

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