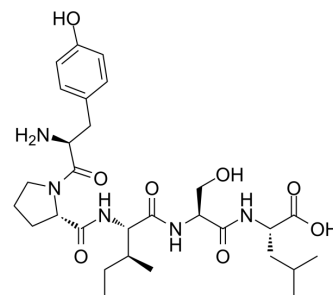


## Gluten Exorphin C

<b>Cat. No.:</b>	HY-P1596
<b>CAS No.:</b>	142479-62-7
<b>Molecular Formula:</b>	C <sub>29</sub> H <sub>45</sub> N <sub>5</sub> O <sub>8</sub>
<b>Molecular Weight:</b>	591.7
<b>Sequence:</b>	Tyr-Pro-Ile-Ser-Leu
<b>Sequence Shortening:</b>	YPISL
<b>Target:</b>	Opioid Receptor
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling
<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 (169.00 mM); Need ultrasonic				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	1.6900 mL	8.4502 mL	16.9005 mL
		5 mM	0.3380 mL	1.6900 mL	3.3801 mL
10 mM		0.1690 mL	0.8450 mL	1.6900 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	1. Add each solvent one by one: PBS Solubility: 50 mg/mL (84.50 mM); Clear solution; Need ultrasonic				

### BIOLOGICAL ACTIVITY

<b>Description</b>	Gluten exorphin C is an opioid peptide derived from wheat gluten. Its IC <sub>50</sub> values are 40 μM and 13.5 μM for μ opioid and δ opioid activities in the GPI and MVD assays, respectively.
<b>IC<sub>50</sub> &amp; Target</b>	IC <sub>50</sub> : 40 μM (μ opioid), 13.5 μM (δ opioid) <sup>[1]</sup>
<b>In Vitro</b>	Gluten exorphin C, a novel opioid peptide, is isolated from the pepsin-trypsin-chymotrypsin digest of wheat gluten. Gluten exorphin C is evaluated its opioid activities by the GPI and MVD assays and its receptor affinities by radioreceptor assays. Its IC <sub>50</sub> s are 40 μM and 13.5 μM in the GPI and the MVD assays, respectively. Gluten exorphin C has a structure quite different from any of the endogenous and exogenous opioid peptides ever reported in that the N terminal Tyr is the only aromatic amino acid. The analogs containing Tyr-Pro-X-Ser-Leu are synthesized to study its structure-activity relationship. Peptides in

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which X is an aromatic amino acid or an aliphatic hydrophobic amino acid has opioid activity<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

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[1]. Fukudome S, et al. Gluten exorphin C. A novel opioid peptide derived from wheat gluten. FEBS Lett. 1993 Jan 18;316(1):17-9.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA