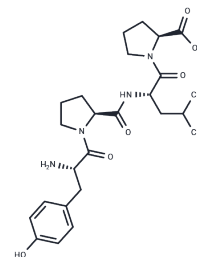


YPLP

Chemical Properties

CAS No. :	2414391-44-7
Formula:	C25H36N4O6
Molecular Weight:	488.58
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	YPLP, a yeast-derived peptide Tyr-Pro-Leu-Pro, demonstrates anti-fatigue activity via the nuclear factor erythroid-2-related factor 2 (Nrf2) and AMP-activated protein kinase (AMPK) pathways. YPLP is orally active [1].
Targets(IC50)	Nrf2,AMPK
In vivo	YPLP, administered at 10-50 mg/kg via gavage for four weeks, reduces oxidative damage in ICR mice induced by exercise by decreasing lipid peroxidation and enhancing antioxidant enzyme activity through the Nrf2/Keap1 pathway. It improves ATP levels and energy metabolism in fatigued ICR mice via AMPK phosphorylation and increased AMPK protein levels. Furthermore, YPLP regulates muscle function in fatigued mice by modulating the expression of differentially abundant proteins (DAP) involved in protein synthesis/degradation, muscle dynamics, and nuclear transport. Animal Model: ICR mice [1] Dosage: 10-50 mg/kg/d Administration: i.g. for 4 weeks Result: Increased levels of Nrf2, ATP, pAMPK and decreased levels of Keap1.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0467 mL	10.2337 mL	20.4675 mL
5 mM	0.4093 mL	2.0467 mL	4.0935 mL
10 mM	0.2047 mL	1.0234 mL	2.0467 mL
50 mM	0.0409 mL	0.2047 mL	0.4093 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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