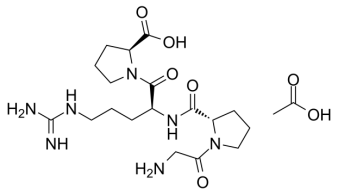
GPRP acetate

Cat. No.:	HY-P0074A
CAS No.:	157009-81-9
Molecular Formula:	$C_{20}H_{35}N_7O_7$
Molecular Weight:	485.53
Sequence:	Gly-Pro-Arg-Pro
Sequence Shortening:	GPRP
Target:	Integrin
Pathway:	Cytoskeleton
Storage:	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

In Vitro

H_2O : 125 mg/mL (257.45 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0596 mL	10.2980 mL	20.5961 mL
	5 mM	0.4119 mL	2.0596 mL	4.1192 mL
	10 mM	0.2060 mL	1.0298 mL	2.0596 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 100 mg/mL (205.96 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

GPRP acetate (Gly-Pro-Arg-Pro acetate) is a fibrin polymerization inhibitor that inhibits the interaction of fibrinogen with the platelet membrane glycoprotein IIb/IIIa complex (GPIIb/IIIa)[1][2][3].

In Vitro

GPRP acetate (0, 2 and 4 mM) increases free thrombin generation[1].

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

In Vivo

GPRP acetate (100 mg/kg; i.p., once daily for 10 days) significantly alleviates DSS-induced colitis through the improvement of body weight loss and mortality[3].

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

Animal Model:	C57BL/6 mice with dextran sulphate sodium (DSS)-induced colitis[3]
Dosage:	100 mg/kg
Administration:	Intraperitoneal injection; 100 mg/kg, once daily, for 10 days
Result:	Significantly inhibited body weight loss and reduced DSS-induced mortality and shortening of colon length, and decreased tissue damage and infiltration of inflammatory cells in colitis mice. Decreased levels of inflammatory cytokines in colitis mice.

CUSTOMER VALIDATION

- Cell Mol Gastroenterol Hepatol. 2021;11(3):683-696.

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REFERENCES

[1]. Zhang C, et al. Fibrinogen/AKT/Microfilament Axis Promotes Colitis by Enhancing Vascular Permeability. Cell Mol Gastroenterol Hepatol. 2021;11(3):683-696.

[2]. Gallistl S, et al. Gly-pro-arg-pro (GPRP) enhances free thrombin. Thromb Res. 1995 Jun 15;78(6):547-50.

[3]. Hsieh KH, et, al. Fibrin Polymerization. 1. Alkylating peptide inhibitors of fibrin polymerization. J Med Chem. 1981 Mar; 24(3): 322-7.

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

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