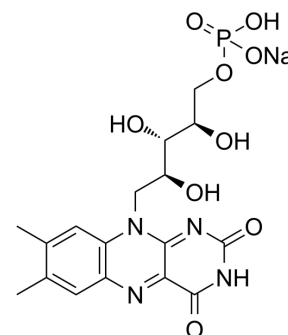


## Riboflavin phosphate sodium

<b>Cat. No.:</b>	HY-B0964
<b>CAS No.:</b>	130-40-5
<b>Molecular Formula:</b>	C <sub>17</sub> H <sub>20</sub> N <sub>4</sub> NaO <sub>9</sub> P
<b>Molecular Weight:</b>	478.33
<b>Target:</b>	Endogenous Metabolite
<b>Pathway:</b>	Metabolic Enzyme/Protease
<b>Storage:</b>	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	H <sub>2</sub> O : 20.83 mg/mL (43.55 mM; ultrasonic and warming and heat to 60°C)				
	DMSO : < 1 mg/mL (insoluble or slightly soluble)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	2.0906 mL	10.4530 mL	20.9061 mL
	5 mM	0.4181 mL	2.0906 mL	4.1812 mL	
	10 mM	0.2091 mL	1.0453 mL	2.0906 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: 4.17 mg/mL (8.72 mM); Clear solution; Need ultrasonic and warming and heat to 60°C				

### BIOLOGICAL ACTIVITY

<b>Description</b>	Riboflavin phosphate sodium (FMN-Na) is a derivative of Riboflavin (vitamin B2) which is an essential nutrient for animals. Riboflavin phosphate sodium can be used for the research of progressive keratoconus, corneal ectasia and irregular astigmatism <sup>[1][2]</sup> . Riboflavine phosphate sodium is a very effective NAD <sup>+</sup> -recycling agent <sup>[3]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Human Endogenous Metabolite
<b>In Vitro</b>	Riboflavine phosphate sodium is clearly a very effective NAD <sup>+</sup> -recycling agent with good yields of the cyclohexanone product accompanied by high levels of NAP turnover being achieved routinely <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

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[1]. José Luis Revuelta, et al. Bioproduction of riboflavin: a bright yellow history. J Ind Microbiol Biotechnol. 2017 May;44(4-5):659-665.

[2]. Carmine Ostacolo, et al. Enhancement of corneal permeation of riboflavin-5'-phosphate through vitamin E TPGS: a promising approach in corneal trans-epithelial cross linking treatment. Int J Pharm. 2013 Jan 20;440(2):148-53.

[3]. J. Bryan Jones, et al. Nicotinamide coenzyme regeneration. Flavin mononucleotide (riboflavin phosphate) as an efficient, economical, and enzyme-compatible recycling agent. Can J Chem. 1976, 54(19): 2969-2973,

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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