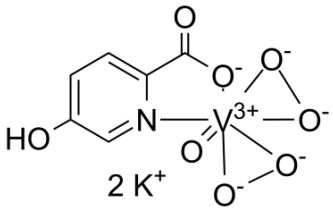
BpV(HOpic)

Cat. No.:	HY-128693
CAS No.:	722494-26-0
Molecular Formula:	$C_6H_4K_2NO_8V$
Molecular Weight:	347.24
Target:	PTEN
Pathway:	PI3K/Akt/mTOR
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	BpV(HOpic) is a potent and selective inhibitor of **PTEN** with an **IC_{50}** of 14 nM. Nanocarrier-BpV(HOpic) has neuroprotective activity[1][2].
IC_{50} & Target	IC50: 14 nM (PTEN)[1]
In Vitro	BpV(HOpic) (1 μM) treatment increases cell proliferation and decreases apoptotic rate in MG63 cells received Cisplatin treatment[3]. Bpv(HOpic) (1 μM) enhances migration of C2C12 myoblasts and is associated with activation of PI3K/AKT and MAPK/ERK signalling pathways[4]. BpV(HOpic) (1 μM; 48 hours) promotes the initiation of swine follicle growth and development, similar as in rodent species and humans[5]. Nanocarrier-BpV(HOpic) enhances axonal outgrowth of neurons[2].
In Vivo	BpV(HOpic) (0.05 mg/kg; i.p.) at reperfusion ameliorates liver ischemia/reperfusion (I/R) injury in vivo[6]. BpV(HOpic) (200 μg/kg; i.p.) exacerbates renal dysfunction and promotes tubular damage in mice with ischemia/reperfusion injury (IRI)[7].

Animal Model:	Male Wistar rats are subjected to partial hepatic ischemia[6]
Dosage:	0.05 mg/kg
Administration:	I.p. injections at the start of reperfusion
Result:	Ameliorated reoxygenation injury and reproduced the hepatoprotective effects obtained by adenosine A2A receptor stimulation.

Animal Model:	Male C57BL/6 mice (8-12 weeks old; 20-30 g) are subjected to renal ischemia[7]
Dosage:	200 μg/kg
Administration:	I.p. injections 1 h before ischemia and then administers every 6 h after ischemia for 24

	hr
Result:	Raised the level of serum creatinine and blood serum urea nitrogen.

REFERENCES

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[5]. Ponte CD, et, al. Pharmacological postconditioning protects against hepatic ischemia/reperfusion injury. Liver Transpl. 2011 Apr; 17(4): 474-82.

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[7]. Kim MS, et, al. Nanotherapeutics of PTEN Inhibitor with Mesoporous Silica Nanocarrier Effective for Axonal Outgrowth of Adult Neurons. ACS Appl Mater Interfaces. 2016 Jul 27; 8(29): 18741-53.

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