

PRODUCT INFORMATION



bpV(HOpic) (potassium salt) (technical grade)

Item No. 15438

CAS Registry No.: 722494-26-0
Formal Name: (5-hydroxy-2-pyridinecarboxylato-κN¹,κO²)
oxodiperoxy-vanadate(2-), dipotassium

Synonym: Bisperoxovanadium(HOpic)

MF: C₆H₄NO₈V • 2K

FW: 347.2

Purity: ≥80%

Supplied as: A crystalline solid

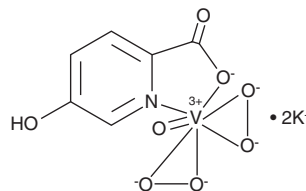
Storage: -20°C

Stability: ≥4 years

Special Conditions: Product not stable in water. Decomposition starts immediately after being dissolved.

Rate of decomposition is slower in dry DMSO.

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.



Laboratory Procedures

bpV(HOpic) (potassium salt) (technical grade) is supplied as a crystalline solid. A stock solution may be made by dissolving the bpV(HOpic) (potassium salt) (technical grade) in the solvent of choice, which should be purged with an inert gas. bpV(HOpic) (potassium salt) (technical grade) is soluble in organic solvents such as DMSO. It is also soluble in water. The solubility of bpV(HOpic) (potassium salt) (technical grade) in DMSO and water is approximately 4 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

bpV(HOpic) is a bisperoxovanadium (bpV) compound that inhibits several different protein tyrosine phosphatases (PTPs), with selectivity for PTEN (IC₅₀ = 14 nM).¹ It also inhibits the vascular endothelial PTP, PTP-β (IC₅₀ = 4.9 μM), and PTP-1β (IC₅₀ = 25.3 μM).¹ At 15 μM, bpV(HOpic) has been shown to protect against stimulated ischemia-reperfusion injury *in vitro* by decreasing apoptosis and improving cell viability through the upregulation of the PI3K/Akt/eNOS/ERK prosurvival pathway.

References

- Schmid, A.C., Byrne, R.D., Vilar, R., *et al.* Bisperoxovanadium compounds are potent PTEN inhibitors. *FEBS Lett.* **566(1-3)**, 35-38 (2004).
- Keyes, K.T., Xu, J., Long, B., *et al.* Pharmacological inhibition of PTEN limits myocardial infarct size and improves left ventricular function postinfarction. *Am. J. Physiol. Heart Circ. Physiol.* **298(4)**, H1198-H1208 (2010).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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