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# DATASHEET

bpV(bipy)

## Product overview

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|---|---|
| **Name** | bpV(bipy) |
| **Cat No** | HB0144 |
| **Biological action** | Inhibitor |
| **Purity** | >95% |
| **Description** | Potent protein PTP inhibitor |

## Biological Data

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|---|---|
| **Biological description** | Potent protein phosphotyrosine phosphatase (PTP) inhibitor ($IC_{50}$ values are 18 and 164 nM for PTP-β and PTP-1B respectively). Also inhibits phosphatase and tensin homologue (PTEN) ($IC_{50}$ = 18 nM). Displays insulin-mimetic properties. |

## Solubility & Handling

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| **Storage instructions** | +4°C |
| **Solubility overview** | Soluble in water |
| **Important** | This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use. |

## Chemical Data

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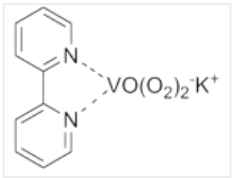
|---|---|
| **Chemical name** | Potassiumbisperoxo(bipyridine)oxovanadate(V) |
| **Molecular Weight** | 326.2 |
| **Chemical structure** |  |
| **Molecular Formula** | $K[VO(O_2)_2C_{10}H_8N_2]$ |
| **CAS Number** | 127393-89-9 |
| **PubChem identifier** | 0 |
| **SMILES** | C[C@@H]1C[C@H](O)\C=C/[C@H](O)[C@@H](O)CC(=O)O1 |

## References

**Inhibition Effects of Some Bioactive Peroxovanadium Complexes on the Tyrosine Phosphatase.**

Zhou XW *et al* (2000) Sheng Wu Hua Xue Yu Sheng Wu Wu Li Xue Bao (Shanghai) 32(2)
**PubMedID** 12098789

**Peroxovanadium compounds. A new class of potent phosphotyrosine phosphatase inhibitors which are insulin mimetics.**

Posner BI *et al* (1994) J Biol Chem 269(6)

**PubMedID** 8308031

**Bisperoxovanadium compounds are potent PTEN inhibitors.**

Schmid AC *et al* (2004) FEBS Lett 566(1-3)
**PubMedID** 15147864

**Early signaling events triggered by peroxovanadium [bpV(phen)] are insulin receptor kinase (IRK)-dependent: specificity of inhibition of IRK-associated protein tyrosine phosphatase(s) by bpV(phen).**

Band CJ *et al* (1997) Mol Endocrinol 11(13)
**PubMedID** 9415395