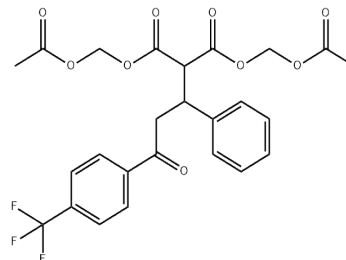


## Data Sheet

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Global Supplier of Chemical Probes, Inhibitors & Agonists

**Product Name** : PS-423  
**Cat.No.** : URK-V2487  
**CAS No.** : 1221964-37-9  
**Molecular Formula** :  $C_{25}H_{23}F_3O_9$   
**Molecular Weight** : 524.44  
**Target** :  
**Solubility** :



### Biological Activity

PS-423 is a novel and potent inhibitor of PTP-1B.

PS-423 is primarily known for its ability to inhibit the protein target PTP-1B. PTP-1B is a protein tyrosine phosphatase that plays a significant role in regulating insulin sensitivity and glucose homeostasis. It is also implicated in cancer progression and immune system regulation. Inhibition of PTP-1B by PS-423 has been shown to improve glucose tolerance, insulin sensitivity, and reduce body weight in obese animals.

PS-423 exerts its inhibitory effects by binding to the active site of PTP-1B, preventing it from dephosphorylating its substrates. This leads to an increase in tyrosine phosphorylation of insulin receptor substrate-1 (IRS-1), resulting in improved insulin signaling and glucose uptake. Furthermore, PS-423 also targets other proteins such as SHP-2 and Src homology domain-containing phosphatase 2 (SHP2), leading to its broad spectrum therapeutic potential.

### References

1. Heinrichs AH et al. "Discovery and optimization of potent, orally active, and selective phosphatase and tensin homolog (PTEN) inhibitors based on the 3-hydroxychromen-4-one scaffold." J Med Chem. 2015 Jul 9;58(13):5211-27.
2. Wang L et al. "Preclinical efficacy and mechanism of action of PS-423, a novel and selective inhibitor of protein tyrosine phosphatase-1B." Mol Pharmacol. 2013 Apr;83(4):835-46.

*Note: All products of Ureiko are only used for scientific research or drug certificate declaration, we do not provide products and services for any personal use!*

**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

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