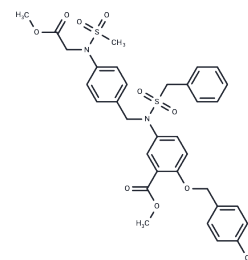


## PTP1B-IN-2

## Chemical Properties

|                   |   |
|-------------------|---|
| CAS No. :         | 1919853-46-5  |
| Formula:          | C34H36N2O9S2  |
| Molecular Weight: | 680.79  |
| Storage:          | Powder: -20°C for 3 years   In solvent: -80°C for 1 year<br>Actual storage temperature shall be subject to the COA. |



## Biological Description

|                            |  |
|----------------------------|--|
| Description                | PTP1B-IN-2 is an effective protein tyrosine phosphatase 1B (PTP1B) inhibitor (IC <sub>50</sub> =50 nM).  |
| Targets(IC <sub>50</sub> ) | Phosphatase  |
| In vitro                   | PTP1B-IN-2 extends deep into the active site pocket, forming several hydrogen bonds and hydrophobic interactions with key residues of the catalytic site. PTP1B-IN-2 greatly enhances insulin-mediated IR $\beta$ phosphorylation at concentrations of 15 $\mu$ M and 30 $\mu$ M.  |
| Kinase Assay               | The PTP1B enzymatic assay, the total volume of 100 $\mu$ L per well contains 15 nM recombinant PTP1B protein, 2 mM p-nitrophenylphosphonic acid (pNPP), 1 mM dithiothreitol and 1 mM EDTA (pH 6.5). After 30 min incubation at 37°C, end the reaction by addition of 2.5 M NaOH. The hydrolysis product, pNP, is detected at the absorbance at 405 nm. |

## Solubility Information

|                     |   |
|---------------------|---|
| Solubility          | DMSO: 45 mg/mL (66.1 mM), Sonication is recommended.<br>( $< 1$ mg/ml refers to the product slightly soluble or insoluble)  |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (2.94 mM), Sonication is recommended.<br><i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i> |

### Preparing Stock Solutions

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|       | 1mg       | 5mg       | 10mg       |
|-------|-----------|-----------|------------|
| 1 mM  | 1.4689 mL | 7.3444 mL | 14.6888 mL |
| 5 mM  | 0.2938 mL | 1.4689 mL | 2.9378 mL  |
| 10 mM | 0.1469 mL | 0.7344 mL | 1.4689 mL  |
| 50 mM | 0.0294 mL | 0.1469 mL | 0.2938 mL  |

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Liu P, et al. Discovery of novel, high potent, ABC type PTP1B inhibitors with TCPTP selectivity and cellular activity. *Eur J Med Chem.* 2016 Aug 8;118:27-33.

Wu R, Wang C, Li Z, et al. SOX2 promotes resistance of melanoma with PD-L1 high expression to T-cell-mediated cytotoxicity that can be reversed by SAHA. *Journal for immunotherapy of cancer.* 2020 Nov;8(2):e001037.

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