## Oxythiamine diphosphate

**MedChemExpress** 

| Cat. No.:          | HY-112889   | HO. <sub>p</sub> .O. <sub>p</sub> .O.<br>HO´O`O`O<br>SO_N<br>HO´O`O`O<br>SO_N |
|--------------------|---|---|
| CAS No.:           | 10497-04-8  |   |
| Molecular Formula: | C <sub>12</sub> H <sub>17</sub> N <sub>3</sub> O <sub>8</sub> P <sub>2</sub> S            |   |
| Molecular Weight:  | 425.29  |   |
| Target:            | Transketolase   |   |
| Pathway:           | Metabolic Enzyme/Protease   |   |
| Storage:           | Please store the product under the recommended conditions in the Certificate of Analysis. |   |

| BIOLOGICAL ACTIVITY       |   |  |
|---------------------------|---|--|
| Description               | Oxythiamin diphosphate is a potent transketolase (TK) inhibitor <sup>[1]</sup> .  |  |
| IC <sub>50</sub> & Target | Ki: 30 nM (thiamine pyrophosphate) <sup>[1]</sup> .   |  |
| In Vitro                  | Rat liver TK is inhibited at 50% by oxythiamine diphosphate in concentrations of 0.02–0.2 μM. I <sub>50</sub> value of Oxythiamine diphosphate for yeast transketolase is approximately 0.03 μM <sup>[1]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |  |

## **CUSTOMER VALIDATION**

• Cell Chem Biol. 2022 Jul 21;S2451-9456(22)00244-6.

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## REFERENCES

[1]. Tylicki A, et al. Thiamine and selected thiamine antivitamins - biological activity and methods of synthesis. Biosci Rep. 2018;38(1):BSR20171148. Published 2018 Jan 10.

Caution: Product has not been fully validated for medical applications. For research use only.

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