

SY-LB-35

## Chemical Properties

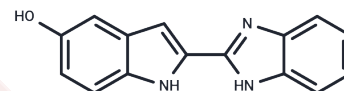
CAS No. : 2603461-70-5

Formula: C<sub>15</sub>H<sub>11</sub>N<sub>3</sub>O

Molecular Weight: 249.27

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	SY-LB-35, a potent bone morphogenetic protein (BMP) receptor agonist, significantly enhances cell number and viability in the C2C12 myoblast cell line. It promotes cell cycle progression, particularly towards the S and G2/M phases. Additionally, SY-LB-35 activates both canonical Smad and non-canonical intracellular signaling pathways, including PI3K/Akt, ERK, p38, and JNK [1].
Targets(IC50)	ERK,Others,Akt,JNK,PI3K,TGF-beta/Smad
In vitro	SY-LB-35, at concentrations ranging from 0.01 to 1000 $\mu$ M applied for 24 hours, significantly enhances both the number and viability of C2C12 myoblast cells [1]. At reduced concentrations (0.01-10 $\mu$ M) and shorter exposure times (30 or 15 minutes), it promotes Smad phosphorylation and its nuclear translocation, while also activating the PI3K/Akt signaling pathway and influencing the localization of phosphorylated Akt within the cytoplasm. Moreover, this treatment boosts PI3K phosphorylation and activation in these cells. Additionally, SY-LB-35, at concentrations of 0.01-10 $\mu$ M for 24 hours, induces a shift in the cell cycle towards the S and G2/M phases in C2C12 cells [1]. Through cell viability assays, it was established that SY-LB-35 at concentrations of 0.01 to 1000 $\mu$ M over 24 hours considerably increases cell count and viability. Further analysis via Western Blot and cell cycle assessment corroborated its role in stimulating key signaling pathways and effecting cell cycle progression at concentrations of 0.01 to 10 $\mu$ M over durations of 15 to 30 minutes and 24 hours, respectively.

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	4.0117 mL	20.0586 mL	40.1171 mL
5 mM	0.8023 mL	4.0117 mL	8.0234 mL
10 mM	0.4012 mL	2.0059 mL	4.0117 mL
50 mM	0.0802 mL	0.4012 mL	0.8023 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.

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