

## Nogo-B-IN-1

## Chemical Properties

CAS No. :

Formula:

Molecular Weight:

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	Nogo-B-IN-1 ((S,R)-4v) is a covalent inhibitor targeting Nogo-B. It suppresses osteosarcoma (OS) progression by inhibiting Nogo-B activity and the PI3K/AKT/NF- $\kappa$ B/Bcl-2 signaling pathways. Nogo-B-IN-1 hinders proliferation of OS 143B cells (IC50=0.28 $\mu$ M) and induces apoptosis. This compound is applicable for targeted OS research.
Targets(IC50)	Apoptosis,Bcl-2 Family,NF- $\kappa$ B,Akt,PI3K
In vitro	Nogo-B-IN-1, when used at 0-3 $\mu$ M for 24 hours, inhibits cell migration and proliferation in 143B cells in a Nogo-B-dependent manner, induces cell morphological abnormalities, cell contraction, disordered arrangement, and leads to apoptosis. At a concentration of 50 $\mu$ M, Nogo-B-IN-1 decreases Nogo-B expression with an inhibitory activity of 99% in 143B cells. Furthermore, at 0-3 $\mu$ M for 24 hours, Nogo-B-IN-1 suppresses Nogo-B, which subsequently reduces PI3K/AKT and NF- $\kappa$ B activities in 143B cells.
In vivo	Nogo-B-IN-1 administered at 30 mg/kg through intraperitoneal injection once daily for 23 days has been shown to inhibit osteosarcoma (OS) progression in a 143B xenograft BALB/c nude mouse model without causing significant toxicity. In a 43B Nogo-B knockdown xenograft BALB/c nude mouse model, the same treatment reduced the inhibitory effect on tumor volume and weight.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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