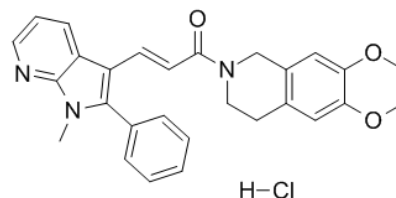


**Product Name** : SIS3  
**Cat. No.** : PC-43323  
**CAS No.** : 521984-48-5  
**Molecular Formula** : C<sub>28</sub>H<sub>28</sub>ClN<sub>3</sub>O<sub>3</sub>  
**Molecular Weight** : 489.9932  
**Target** : TGF beta-Smad  
**Solubility** : DMSO: ≥ 30 mg/mL



## Biological Activity

SIS3 (Specific Inhibitor of Smad3) is a potent, selective inhibitor of **Smad3** function and TGF-β signaling, attenuates the TGF-β1-induced phosphorylation of Smad3 (IC<sub>50</sub>=3 uM) and interaction of Smad3 with Smad4. SIS3 decreases the levels of the DNA-Smad3 binding by approximately 50% at 3 uM; shows no effect on phosphorylated levels of Smad2, Smad4 and Smad7, as well as the phosphorylation of other signaling pathways, such as MAPK/p38. SIS3 attenuates the effects of TGF-beta1 by reducing the transcriptional activity, also inhibits the myofibroblast differentiation of fibroblasts by TGF-beta1, completely diminishes the constitutive phosphorylation of Smad3 as well as the up-regulated type I collagen expression in scleroderma fibroblasts.

## References

- Jinnin M, et al. *Mol Pharmacol*. 2006 Feb;69(2):597-607.  
 Qureshi HY, et al. *Biochim Biophys Acta*. 2008 Sep;1783(9):1605-12.

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

E-mail: tech@probechem.com