

## SB 431542

Catalog Number :3014193

RUO: For Research Use Only. Not for use in diagnostic procedures.

### Product Information

**Synonyms:** SB-431542, ChEMBL440084, 3tzm, GTPL8216, FHYUGAJXYORMHI-UHFFFAOYSA-N

**Chemical Name:** 4-[4-(1,3-benzodioxol-5-yl)-5-pyridin-2-yl-1H-imidazol-2-yl]benzamide

**Molecular Formula:** C<sub>22</sub>H<sub>16</sub>N<sub>4</sub>O<sub>3</sub>

**Molecular Weight:** 384.4

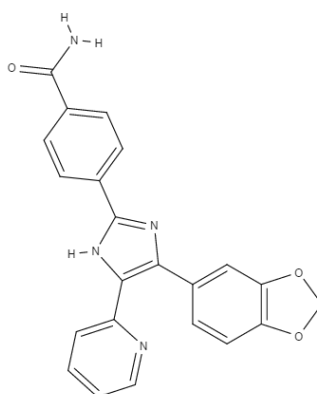
**CAS Number:** 301836-41-9

**Purity:** ≥98%

**Applications:** FA

**Formulation:** Crystalline solid

**Storage:** Product should be kept at -20°C.



### Description

SB 431542 is a selective inhibitor of the TGF-beta type I receptor activin receptor-like kinase (ALK) receptors, ALK5, ALK4 and ALK7 to the exclusion of the BMP type I receptors ALK2, ALK3, and ALK6. It is reported to be useful in promoting stem cell differentiation by suppressing cell renewal by blocking Smad signaling.

### Preparation & Storage

Soluble in organic solvents such as ethanol and DMSO. DMSO up to 50 mM

### References

- Inman, G. J., Nicolás, F. J., Callahan, J. F., Harling, J. D., Gaster, L. M., Reith, A. D., ... Hill, C. S. (2002). SB-431542 is a potent and specific inhibitor of transforming growth factor-β superfamily type I activin receptor-like kinase (ALK) receptors ALK4, ALK5, and ALK7.;Molecular pharmacology,;62(1), 65-74.
- Laping, N. J., Grygielko, E., Mathur, A., Butter, S., Bomberger, J., Tweed, C., ... Olson, B. A. (2002). Inhibition of transforming growth factor (TGF)-β1;induced extracellular matrix with a novel inhibitor of the TGF-β type I receptor kinase activity: SB-431542.;Molecular pharmacology,;62(1), 58-64.
- Halder, S. K., Beauchamp, R. D., Datta, P. K. (2005). A specific inhibitor of TGF-β receptor kinase, SB-431542, as a potent antitumor agent for human cancers.;Neoplasia,;7(5), 509-521.