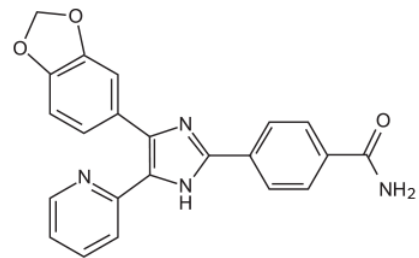


# SB431542

Catalog Number: ST10014

Size	1.3 mL
Concentration	10 mM in DMSO
Description	SB431542 is a potent and selective inhibitor of the transforming growth factor- $\beta$ (TGF- $\beta$ ) type I receptor activin receptor-like kinase ALK5 ( $IC_{50}$ = 94 nM), and its relatives ALK4 and ALK7. It suppresses TGF- $\beta$ -induced proliferation of human osteosarcoma cells. SB431542 has been shown to stimulate proliferation, differentiation, and sheet formation of ESC-derived endothelial cells.
Molecular Weight	384.39
Molecular Formula	$C_{22}H_{16}N_4O_3$
Chemical Name	4-(5-benzo(1,3)dioxol-5-yl-4-pyridin-2-yl-1H-imidazol-2-yl)benzamide
CAS Number	301836-41-9
PubChem Identifier	4521392
Appearance	Colorless liquid
Purity	>98% by HPLC analysis
Formulation	5 mg SB431542 in 1.3 mL of DMSO, filter sterilized
Recommended Usage	Aliquoting the stock solution is recommended to avoid repetitive freeze-thaw cycles. For use in cell culture, media should be warmed prior to adding the reconstituted compound. Note: for most cells, the maximum tolerance to DMSO is less than 0.5%.
Storage and Stability	Store at -20°C. Stable for 6 months when stored as directed. Avoid repeated freeze-thaw cycles.
References	<p>Laping, N.J., et al. (2002) Inhibition of transforming growth factor (TGF)-beta1-induced extracellular matrix with a novel inhibitor of the TGF-beta type I receptor kinase activity: SB-431542. <i>Mol Pharmacol</i> 62: 58-64. PMID: 12065755.</p> <p>Watabe, T., et al. (2003) TGF-beta receptor kinase inhibitor enhances growth and integrity of embryonic stem cell-derived endothelial cells. <i>J Cell Biol</i> 163: 1303-1311. PMID: 14676305.</p>



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