SB431542 Solution (100 mM)

Cat. No.: PB180611

Size: 0.1mL

General Information

Product Form	Liquid
Solvent	DMSO
Concentration	100 mmol/L
Storage	-5~-20°C
Whether to avoid light	Shading light
Shipping	Ice bag
Expiration date	12 months

Background

The activities of ALK4, ALK5, and ALK7 can be substantially inhibited by SB-431542, a Src family kinase inhibitor, which has IC_{50} values of 1 μM, 0.75 μM, and 2 μM, respectively. Additionally, it is a potent inhibitor of the TGF-β signaling pathway. SB-431542 can effectively inhibit the TGF-β mediated SMAD protein activation process by interfering with the TGF-β signaling pathway. This, in turn, inhibits cell proliferation, cell motility and other physiological activities.In particular, it can significantly hinder the migration and invasion process of primary and secondary cancer cells induced by growth factor β1, thus it is of great value in the study of cancer and its signaling pathways.

SB-431542 has been extensively employed in the field of organoid culture, particularly in the lung and inner ear organoid culture processes, where it has been shown to effectively stimulate the development and differentiation of tissues. Additionally, it facilitates the thoroughness of the associated research.

Notes

1. This product is only used for scientific research or further research, not for diagnosis and treatment.
2. This product was sterilized by 0.1 μm filtration and can be used directly after melting.
3. It is necessary to pay attention to the aseptic operation and avoid the contamination.
4. Before using, the product should be thawed at 2-8°C and shaken thoroughly; repeated freeze-thaw cycles are not advised.
5. If precipitation happens after thawing, the contents can be resuspended by pipetting or vortex mixing. After incubating the solution at 37°C for 20 to 30 minutes or letting it stand at room temperature for about an hour, check to see if the precipitate dissolves as intended. If the product dissolves completely, it can be used as usual.
6. This product is a concentrated solution and should be diluted prior to use as required.
7. The product should be used within a month if stored regularly at 2-8°C. Keep in a frozen state at -5~-20°C for extended storage. Long-term storage at room temperature or between 2-8°C is not recommended. When lesser amounts are required, aliquoting is advised to prevent repeated freeze-thaw cycles.