A83-01 Solution (50 mM)

Cat. No.: PB180604

Size: 0.1mL

General Information

Product Form	Liquid
Solvent	DMSO
Concentration	50 mmol/L
Storage	-5~-20°C
Whether to avoid light	Shading light
Shipping	Ice bag
Expiration date	12 months

Background

A83-01 is a potent inhibitor of TGF-β type I receptor kinases, including ALK5 (IC_{50}:12 nM), ALK4 (IC_{50}:45 nM) and ALK 7 (IC_{50}:7.5 nM). A83-01 has a strong inhibitory effect on ALK5, which inhibits Smad2/3 phosphorylation and TGF-β-induced growth. A83-01 had little or no effect on bone morphogenetic protein type I receptor, p38 mitogen-activated protein kinase, or extracellular regulated kinase. Meanwhile, it inhibits TGF-β-induced epithelial-mesenchymal metastasis, suggesting that A83-01 may contribute to the inhibition of advanced cancer progression.

In organoid culture, A83-01 is commonly used for maintaining liver, prostate, and mammary gland organoids, where it helps inhibit iPSC differentiation and promote self-renewal of in vitro cultured cells.

Common working concentration: 2 μM

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.