

LDN-193189 Solution (1 mM)

Cat. No. : PB180618

Size : 1mL

General Information

Product Form	Liquid
Solvent	DMSO
Concentration	1 mmol/L
Storage	-5~-20°C [®]
Whether to avoid light	Shading light
Shipping	Ice bag
Expiration date	12 months

Background

LDN-193189 is a potent and selective inhibitor of the BMP (transcriptionally active morphogenetic protein) signaling pathway that specifically inhibits the transcriptional activity of the BMP type I receptors ALK2 (activin receptor-like kinase-2, IC₅₀: 5 nM) and ALK3 (activin receptor-like kinase-3, IC₅₀: 30 nM). This compound has important applications in bone morphogenetic protein signaling studies, for example, in the study of diseases such as progressive ossifying fibrous dysplasia.

LDN-193189's application in organoid studies primarily reflects its inhibitory effect on BMP signaling. For example, during the generation of retinal organoids, researchers generated pure retinal organoid populations from various widely used cell lines with 100% efficiency by completely blocking retinal specification by modulating BMP signaling using LDN-193189. This method made the process of developing retinal organoids much easier and produced very uniform and reliable retinal organoids that were similar in size and shape.

Notes

1. This product was sterilized by 0.1 μm filtration and can be used directly after melting.
2. It is necessary to pay attention to the aseptic operation and avoid the contamination.
3. Before using, the product should be thawed at 2-8°C and shaken thoroughly; repeated freeze-thaw cycles are not advised.
4. 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.
5. This product is a concentrated solution and should be diluted prior to use as required.
6. 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.
7. This product is for research use only.