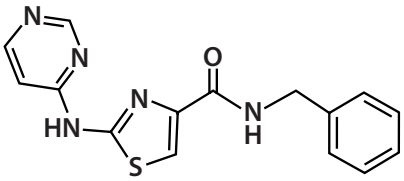
StemMACS™ Thiazovivin

1 mg 130-104-461

Contents

1. Description

Components	StemMACS™ Thiazovivin. A selective small molecule ROCK inhibitor.
Size	1 mg
Product format	Off-white solid
Molecular weight	311.36
CAS number	1226056-71-8
Systematic name	*N*-Benzyl-2-(pyrimidin-4-ylamino)thiazole-4-carboxamide
Molecular formula	$C_{15}H_{13}N_5OS$
Structure	
Purity	>99%
Solubility	Soluble in DMSO (up to 100 mM)
Storage	Store powder at –20 °C. After reconstitution, store aliquots at –20 °C. Protect from light.

1.1 Background information

StemMACS Thiazovivin is a selective small molecule inhibitor of Rho-associated Kinase (ROCK). Thiazovivin promotes survival and cloning efficiency of human pluripotent stem cells after enzymatic dissociation into single cells. It has been shown to increase reprogramming efficiency when combined with inhibitors of the TGF-β and MEK signaling pathways.

2. Protocol

2.1 Preparation of stock solution

Effective concentrations of StemMACS Thiazovivin for cell culture applications range from 0.5 µM to 10 µM. A 10 mM stock solution in DMSO will be appropriate for most applications and can be prepared as follows:

1. Reconstitute the entire vial contents by adding 321.2 µL of pure DMSO. Warm to 37 °C for 3–5 minutes to facilitate solubilization.

   ▲ **Note:** The vial may have turned upside down during transportation. Gently tap prior to reconstitution to collect all powder at the bottom of the vial.

2. Prepare appropriate aliquots and store at –20 °C. Avoid repeated freeze-thaw cycles.

   ▲ **Note:** The DMSO concentration in culture should not exceed 0.5%. Stock solutions of alternate concentration can be prepared using the following table. Add the solvent directly to the vial, it will hold up to 4 mL.

Desired stock	1 mM	2 mM	5 mM	10 mM
Volume of DMSO to add	3212 µL	1606 µL	642.4 µL	321.2 µL

2.2 Use in cell culture

1. Thaw aliquots at 37 °C as needed.
2. To avoid precipitation, prewarm the cell culture media prior to adding the reconstituted compound.
3. Mix and filter the supplemented media through a 0.2 µM low-protein binding filter.

Refer to **www.miltenyibiotec.com** for all data sheets and protocols. Miltenyi Biotec provides technical support worldwide. Visit www.miltenyibiotec.com/local to find your nearest Miltenyi Biotec contact.

Miltenyi Biotec B.V. & Co. KG
Friedrich-Ebert-Straße 68, 51429 Bergisch Gladbach, Germany
Phone +49 2204 8306-0, Fax +49 2204 85197
macsde@miltenyi.com
www.miltenyibiotec.com

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