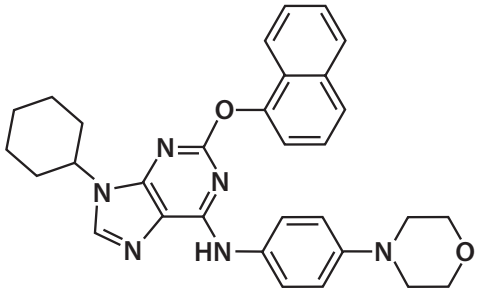
Miltenyi Biotec

StemMACS™ Purmorphamine

5 mg 130-104-465

Contents

1. Description

Components	StemMACS Purmorphamine. An activator of Hedgehog signaling.
Size	5 mg
Product format	Off-white solid
Molecular weight	520.62
CAS number	483367-10-8
Systematic name	2-(1-Naphthoxy)-6-(4-morpholinoanilino)-9-cyclohexylpurine
Molecular formula	$C_{31}H_{32}N_6O_2$
Structure	
Purity	≥92%
Solubility	Soluble in DMSO
Storage	Store powder at –20 °C. After reconstitution, store aliquots at –20 °C. Protect from light.

1.1 Background information

StemMACS Purmorphamine is a small molecule that activates the Hedgehog signaling pathway by binding to the smoothened receptor (IC50 ~ 1.5 µM). Binding is competitive with respect to the smoothened antagonist cyclopamine. Purmorphamine has been used instead of sonic hedgehog for motor neuron differentiation from pluripotent stem cells and can promote osteogenesis in mesenchymal progenitor cells.

2. Protocol

2.1 Preparation of stock solution

Effective concentrations of StemMACS Purmorphamine for cell culture applications range from 1 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 960.4 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	2.5 mM	5 mM	10 mM
Volume of DMSO to add	Dilute 1:10 from a 10 mM stock	3762 µL	1881 µL	960.4 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 for local Miltenyi Biotec Technical Support contact information.

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

140-004-492.05

Legal notices

Limited product warranty

Miltenyi Biotec B.V. & Co. KG and/or its affiliate(s) warrant this product to be free from material defects in workmanship and materials and to conform substantially with Miltenyi Biotec's published specifications for the product at the time of order, under normal use and conditions in accordance with its applicable documentation, for a period beginning on the date of delivery of the product by Miltenyi Biotec or its authorized distributor and ending on the expiration date of the product's applicable shelf life stated on the product label, packaging or documentation (as applicable) or, in the absence thereof, ONE (1) YEAR from date of delivery ("Product Warranty"). Miltenyi Biotec's Product Warranty is provided subject to the warranty terms as set forth in Miltenyi Biotec's General Terms and Conditions for the Sale of Products and Services available on Miltenyi Biotec's website at www.miltenyibiotec.com, as in effect at the time of order ("Product Warranty"). Additional terms may apply. BY USE OF THIS PRODUCT, THE CUSTOMER AGREES TO BE BOUND BY THESE TERMS.

THE CUSTOMER IS SOLELY RESPONSIBLE FOR DETERMINING IF A PRODUCT IS SUITABLE FOR CUSTOMER'S PARTICULAR PURPOSE AND APPLICATION METHODS.

Technical information

The technical information, data, protocols, and other statements provided by Miltenyi Biotec in this document are based on information, tests, or experience which Miltenyi Biotec believes to be reliable, but the accuracy or completeness of such information is not guaranteed. Such technical information and data are intended for persons with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. Miltenyi Biotec shall not be liable for any technical or editorial errors or omissions contained herein.

All information and specifications are subject to change without prior notice. Please contact Miltenyi Biotec Technical Support or visit www.miltenyibiotec.com for the most up-to-date information on Miltenyi Biotec products.

Licenses

This product and/or its use may be covered by one or more pending or issued patents and/or may have certain limitations. Certain uses may be excluded by separate terms and conditions. Please contact your local Miltenyi Biotec representative or visit Miltenyi Biotec's website at www.miltenyibiotec.com for more information.

The purchase of this product conveys to the customer the non-transferable right to use the purchased amount of the product in research conducted by the customer (whether the customer is an academic or for-profit entity). This product may not be further sold. Additional terms and conditions (including the terms of a Limited Use Label License) may apply.

CUSTOMER'S USE OF THIS PRODUCT MAY REQUIRE ADDITIONAL LICENSES DEPENDING ON THE SPECIFIC APPLICATION. THE CUSTOMER IS SOLELY RESPONSIBLE FOR DETERMINING FOR ITSELF WHETHER IT HAS ALL APPROPRIATE LICENSES IN PLACE. Miltenyi Biotec provides no warranty that customer's use of this product does not and will not infringe intellectual property rights owned by a third party. BY USE OF THIS PRODUCT, THE CUSTOMER AGREES TO BE BOUND BY THESE TERMS.

Trademarks

The Miltenyi Biotec logo and StemMACS are registered trademarks or trademarks of Miltenyi Biotec and/or its affiliates in various countries worldwide.