Miltenyi Biotec

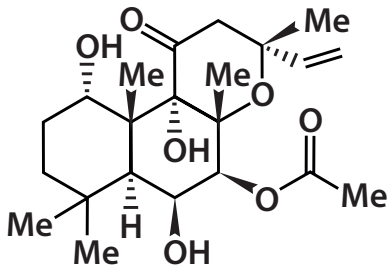
StemMACS™ Forskolin

10 mg 130-117-341

Contents

1. Description

Components	10 mg StemMACS™ Forskolin
Product format	Yellow solid
Molecular mass	410.50
CAS number	66575-29-9
Systematic name	[3R-(3α,4aβ,5β,6β,6aα,10α,10aβ,10bα)]-5-(Acetyloxy)-3-ethenyldodecahydro-6,10,10b-trihydroxy-3,4a,7,7,10a-pentamethyl-1H-naphtho[2,1-b]pyran-1-one
Molecular formula	$C_{22}H_{34}O_7$



Purity	>98%
Solubility	Soluble in DMSO (up to 25 mM upon warming).
Storage	Store powder at –20 °C. After reconstitution, store aliquots at –20 °C. The expiration date is indicated on the label. Protect from light.

1.1 Background information

StemMACS™ Forskolin is a stimulator of the enzyme adenylate cyclase and increases the production of cyclic AMP (cAMP) from ATP. The signaling molecule cyclic AMP has been implicated in the regulation of a variety of intracellular processes. In pluripotent stem cell research, Forskolin has been used, e.g., to enhance neuronal differentiation.

2. Protocol

2.1 Preparation of stock solution

Effective concentrations of StemMACS Forskolin for cell culture applications range from 100 nM to 100 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 2436 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 exeed 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	10 mM	20 mM
Volume of DMSO to add	Dilute 1:10 from a 10 mM stock	Dilute 1:5 from a 10 mM stock	2436 µL	1218 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.

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