Mifepristone

Store at –20°C

Catalog Number: H110-01

Pub. No. MAN0000138 Rev. A.0

Product description

Mifepristone is a synthetic 19-norsteroid that binds with high affinity (Kd < 1 x 10^-9 M) to human progesterone and glucocorticoid receptors\(^2\). Mifepristone is intended for use with the GeneSwitch™ System (Cat. nos. K1060-01 and K1060-02), and acts as an inducing agent by binding to a truncated human progesterone receptor ligand binding domain (hPR-LBD)\(^5\). Binding of mifepristone to the regulatory protein results in activation of gene expression from the inducible expression plasmid in mammalian cells. Refer to the GeneSwitch™ System manual for details.

This compound has not been tested in transgenic animals utilizing the GeneSwitch™ System, but can induce expression in mice using similar vectors\(^1,3\).

Product specifications

**Quantity:** 100 μg  
**Form:** Lyophilized powder  
**Formula:** C\(_{29}\)H\(_{35}\)NO\(_2\)  
**Merck Index:** 12: 1057  
**Molecular Weight:** 429.60 g/mol  
**Systematic Name:** 11β-[4-dimethylamino]phenyl-17β-hydroxy-17-[1-propynyl]estr-4,9-dien-3-one  
**Alternate Name:** RU-486  
**Lot:** See product label

**CAUTION**

- Mifepristone is toxic. Do not ingest or inhale the powder or solutions containing the drug.
- Use caution when handling large quantities of mifepristone. At high doses (>100 mg), mifepristone may impair fertility and may cause harm to the unborn child\(^2,4\).
- Always wear gloves, a laboratory coat, and safety glasses or goggles when handling mifepristone and mifepristone-containing solutions.

Prepare stock solution

Mifepristone is soluble in 100% ethanol. To prepare a 1 mM stock solution:

1. Add 233 μL of 100% ethanol to one vial of mifepristone (100 µg, ~0.23 μmole).
2. Gently mix to dissolve. Do not heat.
3. Cover the top of the vial with plastic paraffin film to prevent evaporation.
4. Store the 1 mM stock solution at –20°C. The solution is stable indefinitely.

Prepare working solution

1. Dilute 100 μL of 1 mM stock solution in 10 mL of 100% ethanol to make a 10 μM working solution.
2. Use this working solution when adding mifepristone to your cells.
3. Store the working solution at –20°C.

General guidelines

Follow the guidelines below to use mifepristone to induce gene expression.

- Use 10 µL of 10 μM mifepristone per 10 mL of culture medium to induce expression from pGene/V5-His.
- Optimize expression by varying the concentration of mifepristone from 1–100 nM and/or varying the duration of induction.

**Note:** The concentrations of mifepristone used in the GeneSwitch™ System exert no known toxic or pleiotrophic effects on mammalian cells that lack progesterone and glucocorticoid receptors.

Storage and handling

Mifepristone is shipped at room temperature. Upon receipt, store the powder at –20°C.

Stability

When stored as instructed, expires six months from date of receipt unless otherwise indicated on the Certificate of Analysis.
References


Product documentation

To obtain a Certificate of Analysis or Safety Data Sheets (SDSs), visit www.lifetechnologies.com/support.

Important licensing information

This product may be covered by one or more Limited Use Label Licenses. By use of this product, you accept the terms and conditions of all applicable Limited Use Label Licenses.

Limited product warranty

Life Technologies Corporation and/or its affiliate(s) warrant their products as set forth in the Life Technologies’ General Terms and Conditions of Sale found on Life Technologies’ website at www.lifetechnologies.com/termsandconditions. If you have any questions, please contact Life Technologies at www.lifetechnologies.com/support.

Explanation of symbols

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