

Mifepristone

Store at -20°C

Catalog Number: H110-01

Pub. No. MAN0000138 **Rev.** A.0

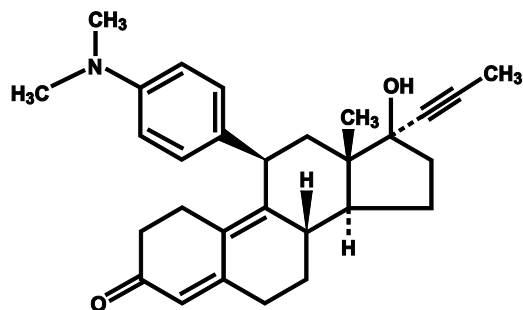
Product description

Mifepristone is a synthetic 19-norsteroid that binds with high affinity ($K_d < 1 \times 10^{-9}$ M) to human progesterone and glucocorticoid receptors². 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]estra-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.

For Research Use Only. Not for use in diagnostic procedures.

5791 Van Allen Way • Carlsbad • CA 92008 • E-mail: techsupport@lifetech.com

References

1. Abruzzese, R. V., Godin, D., Burcin, M., Mehta, V., French, M., Li, Y., O'Malley, B. W., and Nordstrom, J. L. (1999). Ligand-Dependent Regulation of Plasmid-Based Transgene Expression *in Vivo*. *Human Gene Therapy* 10, 1499-1507.
2. Baulieu, E. E. (1989). Contraception and Other Clinical Applications of RU486, an Antiprogestone at the Receptor. *Science* 245, 1351-1357.
3. Burcin, M. M., Schiedner, G., Kochanek, S., Tsai, S. Y., and O'Malley, B. W. (1999). Adenovirus-Mediated Regulable Target Gene Expression *in vivo*. *Proc. Natl. Acad. Sci. USA* 96, 355-360.
4. Philibert, D., Moguilewsky, M., Mary, I., Lecaque, D., Tournemine, C., Secchi, J., and Deraedt, R. (1985). In *The Antiprogestin Steroid RU486 and Human Fertility Control*, E. E. Baulieu and S. J. Segal, eds. (New York: Plenum), pp. 49-68.
5. Wang, Y., Xu, J., Pierson, T., O'Malley, B. W., and Tsai, S. Y. (1997). Positive and Negative Regulation of Gene Expression in Eukaryotic Cells with an Inducible Transcriptional Regulator. *Gene Therapy* 4, 432-441.

Product documentation

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








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Explanation of symbols

Symbol	Description	Symbol	Description	Symbol	Description
	Manufacturer		Catalog number		Batch code
	Use by		Temperature limitation		
	Consult instructions for use		Caution, consult accompanying documents		

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