



碧云天生物技术/Beyotime Biotechnology  
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## Rapamycin (FRAP/mTOR抑制剂)

产品编号	产品名称	包装
S1842-1mg	Rapamycin (FRAP/mTOR抑制剂)	2mg/ml×0.5ml
S1842-5mg	Rapamycin (FRAP/mTOR抑制剂)	5mg
S1842-25mg	Rapamycin (FRAP/mTOR抑制剂)	25mg
S1842-100mg	Rapamycin (FRAP/mTOR抑制剂)	100mg
S1842-500mg	Rapamycin (FRAP/mTOR抑制剂)	500mg

### 产品简介:

- Rapamycin也称AY 22989或sirolimus, 可与FKBP12形成复合物, 随后结合并抑制FRAP/mTOR。mTOR是哺乳动物中rapamycin的作用靶点, 也被称为FRAP或FAFT, 是一个Ser/Thr蛋白激酶, 可以激活p70 S6 kinase。Rapamycin对于p70 S6 kinase的抑制作用的IC<sub>50</sub>为0.05nM。Rapamycin通过抑制FRAP/mTOR可以抑制p70 S6 kinase的磷酸化和激活, 抑制4E-BP1/PHAS1的磷酸化并促进其对eIF4E的结合和抑制。
- Rapamycin分子量为914.17, 分子式为C<sub>51</sub>H<sub>79</sub>NO<sub>13</sub>, CAS Number: 53123-88-9。本产品纯度大于98%。
- 本Rapamycin为进口分装, 其中2mg/ml包装产品用DMSO配制, 共0.5ml。5mg, 25mg, 100mg和500mg包装为粉末装。

### 包装清单:

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S1842-500mg	Rapamycin (FRAP/mTOR抑制剂)	500mg
—	说明书	1份

### 保存条件:

-20°C避光保存, 半年有效。

### 注意事项:

- 本产品对人体有害, 操作时请小心, 并注意有效防护以避免直接接触人体或吸入体内。
- 本Rapamycin在4°C、冰浴等较低温度情况下会凝固而粘在离心管管底、管壁或管盖内, 可以20-25°C水浴温育片刻至全部融解后使用。
- 本产品仅限于专业人员的科学研究用, 不得用于临床诊断或治疗, 不得用于食品或药品, 不得存放于普通住宅内。
- 为了您的安全和健康, 请穿实验服并戴一次性手套操作。

### 使用说明:

1. Rapamycin常见使用浓度范围为10-100nM。具体的最佳工作浓度请参考相关文献, 或根据实验目的, 以及所培养的特定细胞和组织, 通过实验进行摸索和优化。

### 使用本产品的文献:

1. Tang XD, Zhou X, Zhou KY. Dauricine inhibits insulin-like growth factor-I-induced hypoxia inducible factor 1alpha protein accumulation and vascular endothelial growth factor expression in human breast cancer cells. *Acta Pharmacol Sin.* 2009 May;30(5):605-16.
2. Zhang H, Han Y, Tao J, Liu S, Yan C, Li S. Cellular repressor of E1A-stimulated genes regulates vascular endothelial cell migration by the ILK/AKT/mTOR/VEGF(165) signaling pathway. *Exp Cell Res.* 2011 Dec 10;317(20):2904-13.
3. Zhou F, Chen S, Xiong J, Li Y, Qu L. Luteolin Reduces Zinc-Induced Tau Phosphorylation at Ser262/356 in an ROS-Dependent Manner in SH-SY5Y Cells. *Biol Trace Elem Res.* 2012 Nov;149(2):273-9.
4. Xia Y, Zeng D, Yu F, He J, Zhou Z, Tu W, Deng H, Tian DA, Liu M. Role of autophagy in monokine induced by interferon  $\gamma$  (Mig) production during adenovirus-hepatitis B virus infection. *Hepatogastroenterology.* 2012 Jun;59(116):1245-50.
5. Zhang J, Chiu J, Zhang H, Qi T, Tang Q, Ma K, Lu H, Li G. Autophagic cell death induced by resveratrol depends on the Ca<sup>2+</sup>/AMPK/mTOR pathway in A549 cells. *Biochem Pharmacol.* 2013 Jul 15;86(2):317-28.
6. Miao XY, Gu ZY, Liu P, Hu Y, Li L, Gong YP, Shu H, Liu Y, Li CL. The human glucagon-like peptide-1 analogue liraglutide regulates pancreatic beta-cell proliferation and apoptosis via an AMPK/mTOR/P70S6K signaling pathway. *Peptides.* 2013 Jan;39:71-9.
7. Liu Y, Duan W, Guo Y, Li Z, Han H, Zhang S, Yuan P, Li C. A new cellular model of pathological TDP-43: The neurotoxicity of stably expressed CTF25 of

TDP-43 depends on the proteasome. *Neuroscience*. 2014 Sep 28;281C:88-98.

8. Zhang X, Zhang L, Cheng X, Guo Y, Sun X, Chen G, Li H, Li P, Lu X, Tian M, Qin J, Zhou H, Jin G. IGF-1 promotes Brn-4 expression and neuronal differentiation of neural stem cells via the PI3K/Akt pathway. *PLoS One*. 2014 Dec 4;9(12):e113801.
9. Wang H, Li X, Liu H, Sun L, Zhang R, Li L, Wangding M, Wang J. Six1 induces protein synthesis signaling expression in duck myoblasts mainly via up-regulation of mTOR. *Genet Mol Biol*. 2016 Mar;39(1):151-61.
10. Khan SH, Zhao D, Shah SZ, Hassan MF, Zhu T, Song Z, Zhou X, Yang L. Parkin Overexpression Ameliorates PrP106-126-Induced Neurotoxicity via Enhanced Autophagy in N2a Cells. *Cell Mol Neurobiol*. 2016 Jul 18. [Epub ahead of print]
11. Liu J, Wang H, Wang B, Chen T, Wang X, Huang P, Xu L, Guo Z. Microcystin-LR promotes proliferation by activating Akt/S6K1 pathway and disordering apoptosis and cell cycle associated proteins phosphorylation in HL7702 cells. *Toxicol Lett*. 2016 Jan 5; 240(1):214-25.
12. Dong F, Yao R, Yu H, Liu Y. Neuroprotection of Ro25-6981 Against Ischemia/Reperfusion-Induced Brain Injury via Inhibition of Autophagy. *Cell Mol Neurobiol*. 2016 Jul 25. [Epub ahead of print]

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