

ReadiUse™ Staurosporine * 1 mM DMSO stock solution*

 Catalog number: 80050
 Unit size: 100 uL

Component	Storage	Amount (Cat No. 80050)
ReadiUse™ Staurosporine * 1 mM DMSO stock solution*	Freeze (< -15 °C), Minimize light exposure	1 vial (100 uL)

OVERVIEW

Staurosporine is widely used as a positive control for inducing apoptosis. It has been proven that Staurosporine induces apoptosis in human malignant glioma cell lines, and arrests normal cells at the G1 checkpoint. Staurosporine is a potent, cell-permeable, reversible, ATP-competitive and broad spectrum inhibitor of protein kinases, e.g., CaM kinase (IC₅₀ = 20 nM), myosin light chain kinase (IC₅₀ = 1.3 nM), protein kinase A (IC₅₀ = 7 nM), protein kinase C (IC₅₀ = 0.7 nM), and protein kinase G (IC₅₀ = 8.5 nM). Staurosporine also inhibits platelet aggregation induced by collagen or ADP but has no effect on thrombin-induced platelet aggregation.

AT A GLANCE

ReadiUse™ Staurosporine * 1 mM DMSO stock solution* is stable for 24 months upon receiving when stored at <-15 °C with reduced light exposure.

SAMPLE EXPERIMENTAL PROTOCOL

Following protocol can be used as a guideline. We recommend optimizing the concentration and incubation time depending on cell lines to achieve the end result.

Sample protocol to achieve apoptosis

1. Culture cells in a 37 °C and 5% CO₂ incubator overnight.
2. Add ReadiUse™ Staurosporine to cell culture at a final concentration of 1 μM and incubate for 4 hours.

Note: The concentration and induction time to induce apoptosis varies with cell lines used.

3. Analyze apoptosis with the desired assay.

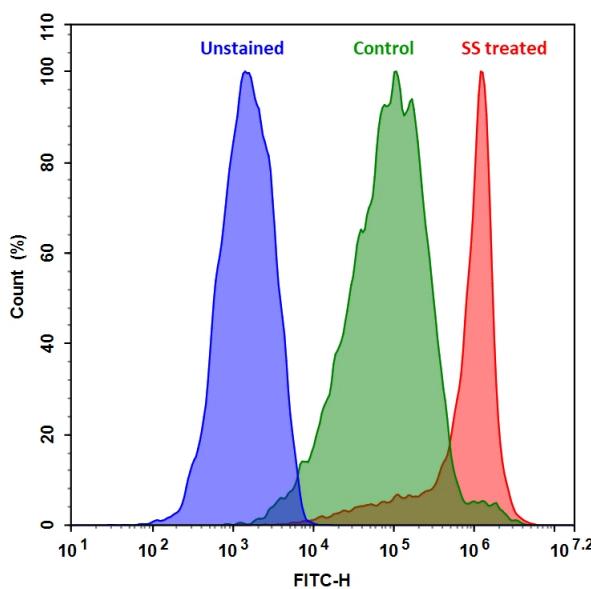
EXAMPLE DATA ANALYSIS AND FIGURES


Figure 1. Jurkat cells were treated without (Green) or with 1 μM staurosporine (Red) in 37 °C for 4 hours, and then labeled with FITC-Annexin V conjugate for 30 minutes. Fluorescence intensity was measured using ACEA NovoCyte flow cytometer in FITC channel.

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