

Store at -20C #2222	Anisomycin	
	10 mg	Orders: 877-616-CELL (2355) orders@cellsignal.com Support: 877-678-TECH (8324) Web: info@cellsignal.com cellsignal.com 3 Trask Lane Danvers Massachusetts 01923 USA

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Background

Anisomycin, an antibiotic produced by *Streptomyces griseolus* and *S. roseochromogenes*, was originally described to inhibit protein-protein synthesis at the translational level (1). More recently, it has been well characterized to strongly activate the stress kinases SAPK/JNK and p38 MAPK, as well as p70/85 S6 kinase in mammalian cells, which results in the rapid induction of immediate-early (IE) genes, such as c-fos, fosB, c-jun, JunB, and JunD (1). Investigators have demonstrated that anisomycin acts as a potent signaling agonist, synergizing with growth factors and phorbol esters to superinduce these IE genes (1,2). Research studies have demonstrated that anisomycin induces apoptosis in many cancer cell lines (3-5).

Molecular Formula

C₁₄H₁₉NO₄

Molecular Weight

265.3 g/mol

Purity

>98%

CAS

22862-76-6

Solubility

Soluble in DMSO at 100mg/ml and MeOH at 50mg/ml.

Storage

Store lyophilized at -20C. Protect from light. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 1 month and store at -20C. Aliquot to avoid multiple freeze/thaw cycles.

Directions for Use

Anisomycin is supplied as a lyophilized powder. For a 25 mg/ml stock, reconstitute the 10 mg in 400 µl DMSO. Working concentrations and length of treatments vary depending on the desired effect, but it is typically used at 5-50 µg/ml for 5-60 minutes. Soluble in DMSO or MeOH.

Background References

1. Hazzalin, C.A. et al. (1998) *Mol Cell Biol* 18, 1844-54.
2. Kardalidou, E. et al. (1994) *Mol Cell Biol* 14, 1066-74.
3. Kochi, S.K. and Collier, R.J. (1993) *Exp Cell Res* 208, 296-302.
4. Töröcsik, B. and Szeberényi, J. (2000) *Biochem Biophys Res Commun* 278, 550-6.
5. Curtin, J.F. and Cotter, T.G. (2002) *Br J Cancer* 87, 1188-94.

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