

Anisomycin

✓ 10 mg

Orders ■ 877-616-CELL (2355)
orders@cellsignaling.com

Support ■ 877-678-TECH (8324)
info@cellsignaling.com

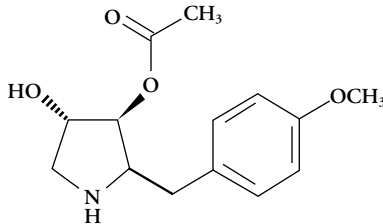
Web ■ www.cellsignaling.com

rev. 12/18/15

For Research Use Only. Not For Use In Diagnostic Procedures.

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 is 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

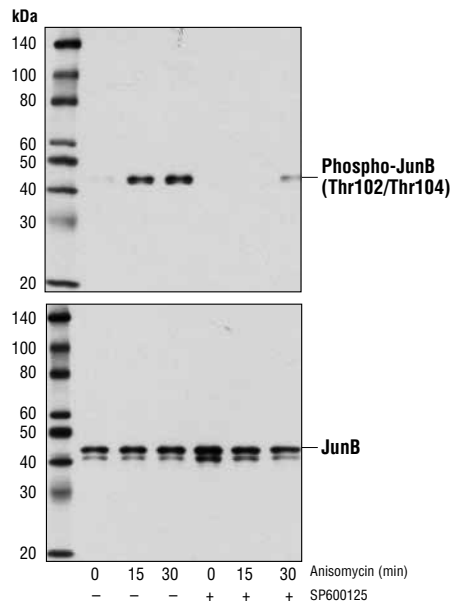


Molecular Weight: 265.3 g/mol

Solubility: Soluble in DMSO or MeOH.

Purity: >98%

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.

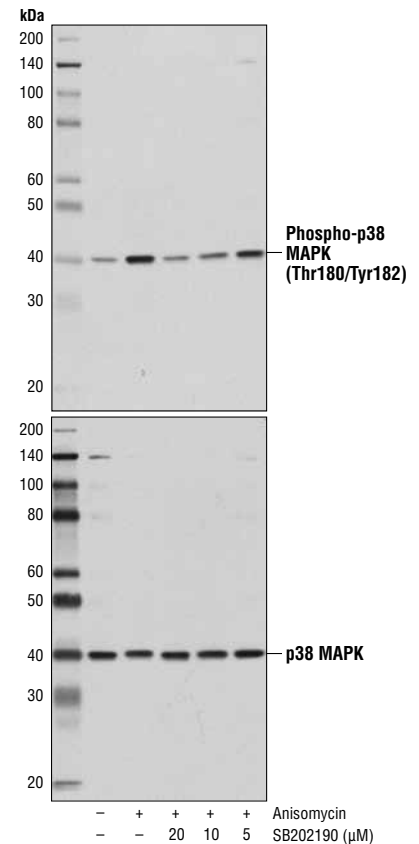


Western blot analysis of extracts from 293T cells, treated with Anisomycin (25 µg/ml) for the indicated times, with or without pretreatment with JNK inhibitor SP600125 (50 µM, 40 min; +), using Phospho-JunB (Thr102/Thr104) (D3C6) Rabbit mAb #8053 (upper) or JunB (C37F9) Rabbit mAb #3753 (lower).

Storage: Store lyophilized or in solution at 4°C, desiccated. Protect from light. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.

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.



Western blot analysis of extracts from Jurkat cells, serum-starved overnight, pretreated with the indicated concentrations of SB202190 for 1 hr, and subsequently treated with Anisomycin (25 µg/ml, 30 min; +), using Phospho-p38 MAPK (Thr180/Tyr182) (D3F9) XP® Rabbit mAb #4511 (upper) or p38 MAPK Antibody #9212 (lower).