

The Cellular Target Specificity of Pateamine A

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The natural product pateamine A (pateamine) from the sponge *Mycale hentscheli* is active against a wide range of dividing cells and has been shown to inhibit the functions of the eukaryotic initiation factor 4A (eIF4A). We have identified that pateamine is additionally able to modulate the formation of actin filaments and microtubules *in vitro* but at higher concentrations than required for inhibition of eIF4A. Cell cycle analysis confirmed that actin and tubulin are not major mediators of the cellular activity of pateamine. The range of targets identified demonstrates the value of multiple approaches to determining the mode of action of biologically active compounds.

Key words: Pateamine, Actin, Tubulin