

**P07 CALMOSTINOL, A NEW CALPAIN INHIBITOR PRODUCED BY AN ACTINOMYCETE**

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Specific inhibitors of a calcium activated neutral protease calpain could be used for the treatment of neurodegenerative diseases, cataract and muscular dystrophy diseases because of their therapeutic effects. In the course of screening for potential calpain inhibitors from microorganisms, a new analogue of chymostatins named calmostinol was isolated from the culture filtrate of an actinomycete. The MW was determined to be 596 [(M + H)<sup>+</sup>] by FAB-MS in glycerol matrix. The structure was elucidated to be *N*-[[(S)-1-carboxy-2-phenylethyl]-carbamoyl]- $\alpha$ -[2-iminohexahydro-4(S)-pyrimidyl]-L-glycyl-L-valyl-phenylalaninol, by the spectroscopic methods such as NMR and MS fragmentation studies. Calmostinol exhibited strong activity against calpain while not against a Ca<sup>2+</sup>-independent cysteine protease papain.