## Inhibition of TNF- $\alpha$ Promoter Activity and Synthesis by A11-99-1, a New Cyclopentenone from the Ascomycete *Mollisia melaleuca*

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In a search for inhibitors of the inducible tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ) promoter activity and synthesis, a new chlorinated cyclopentenone was isolated from fermentations of the ascomycete *Mollisia melaleuca*. The structure was determined by a combination of spectroscopic techniques. The compound blocked the inducible human TNF- $\alpha$  promoter activity and synthesis with IC<sub>50</sub>-values of 2.5–5  $\mu$ g/ml (8.1–16.1  $\mu$ M). Studies on the mode of action of the compound revealed that the inhibition of TNF- $\alpha$  promoter activity is caused by an inhibition of the phosphorylation of the I $\alpha$ B protein which prevents the activation of the transcription factor NF- $\alpha$ B. No cytotoxic, antibacterial and antifungal activities could be observed up to 100  $\mu$ g/ml (323  $\mu$ M) of the compound.

*Key words: Mollisia melaleuca*, Cyclopentenone, TNF-α, NF-*α*B