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Induction of Apoptosis in Tumour Cell Lines by  
Alkylphosphocholines

Many biological mechanisms are regulated or inducible by lipids as signalling molecules, some of which can provoke apoptosis. In this context we investigated the efficacy of synthetic alkylphosphocholines as potential anti-cancer drugs. The results obtained provided evidence that these compounds induce cell death via death-receptor-signalling<sup>(1)</sup> leading to novel therapeutic strategies for cancer<sup>(2)</sup>.

The data presented here show a cell death inducing capacity for S-1-O-phosphocholine-2-O-acetyl-octadecane in tumour cells of the immune system. The onset of apoptosis is nearly completely inhibited in FADDdn BJAB cells. This is valid for all parameters tested: caspase activation, substrate cleavage, DNA laddering and PS-externalisation. Further experiments were carried out with cells deficient in parts of the death inducing signalling complex to confirm these results.

1) Matzke, A., Massing, U., and Krug, H.F. (2001). *Eur. J. Cell Biol.* 80, 1-10.

2) Reed, J.C. (2001). *Trends Mol. Med.* 7, 314-319.

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