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MAPK and PI3K/PKB Pathways Contribute the Apoptosis by Oligonol in MCF-7 Cells

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Oligonol is the formulated oligomeric polyphenol form of grape seed (Amino-Up Chemical Co.). Oligonol might have the potentials in preventive effects of lifestyle-related diseases including hyperlipemia, hypercholesterolemia, hypertension, cancers, etc. In this study, oligonol was investigated for its chemopreventive effect and the ability to inhibit cell proliferation in the MCF-7 human breast cancer cell line. This chemical induced the apoptosis in breast cancer cell demonstrated by Hoechst 33258 staining and FACs analysis. This result was associated with relevance of MAPK and PI3K/PKB pathways demonstrated by Western blotting. [Professor Aruoma acknowledges the 'Brain Pool Award' from the Korean Ministry of Science and Technology (2004-2005) and its hosting by the Seoul National University, College of Veterinary Medicine.]

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