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Biological activity of Kiwifruit peel extracts

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Various bioactive substances in kiwifruit extracts were fractionated by organic solvent extractions, followed by silica gel and ODS chromatographies. Both cytotoxic activity and multi-drug resistance reversal activity were found in the less polar fractions. Cytotoxic activity was not always parallel the radical intensity. Antibacterial activity was distributed into various fractions and all fractions were inactive against *Candida albicans* and *H. pylori*. Only 70% methanol extracts showed anti-human immunodeficiency virus activity, and produced a broad ESR signal under alkaline conditions, in a fashion similar to lignin. These fractions also effectively scavenged O_2^- produced by the xanthine-xanthine oxidase reaction, suggesting a bimodal (pro-oxidant and antioxidant) action. These data suggest a medicinal efficacy of kiwifruit peel extracts.