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Cancer prevention and therapy with kiwifruit in Chinese folklore medicine: a study of kiwifruit extracts

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Kiwi gold fruits were extracted successively with hexane, acetone, methanol and 70% methanol, and further fractionated by silica gel and ODS column chromatographies for the assays of various biological activities. Five fractions H1, H2 (hexane extract), A1, A2 (acetone extract) and M2 (methanol extract) showed selective cytotoxic activity against human oral tumor cell lines, which was more sensitive than human gingival fibroblasts. More hydrophilic fractions [70M3, 70M4, 70M5] of 70% methanol extract displayed higher anti-HIV activity, radical generation and O₂⁻ scavenging activity. The antibacterial activity of 70% methanol extracts [70M0, 70M1, 70M2, 70M3, 70M4] was generally lower than that of more lipophilic fractions (hexane, acetone, methanol extracts), although each fraction did not show any specific antimicrobial action. All fractions were inactive against *Helicobacter pylori*. These results demonstrate that gold kiwifruit extracts contain valuable, various bioactive materials, which can be separated with each other.