Cytotoxic effects of new alkyl phloroglucinol derivatives from *Rhus trichocarpa* roots on human gastric adenocarcinoma cells

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Five new alkyl phloroglucinol derivatives, characterized as (Z)-15-hydroxy-1-(2,4,6-trihydroxyphenyl)-9-octadecen-1-one (named trichocarpol A, 1), (Z)-15-hydroxy-1-(2,6-dihydroxy-4-methoxyphenyl)-9-octadecen-1-one (named trichocarpol B, 2), (Z)-17-hydroxy-1-(2,4,6-trihydroxyphenyl)-9-octadecen-1-one (named trichocarpol C, 3), (Z)-18-hydroxy-1-(2,4,6-trihydroxyphenyl)-9-octadecen-1-one (named trichocarpol D, 4), and (9Z,12Z)-18-hydroxy-1-(2,4,6-trihydroxyphenyl)-9,12-octadecadien-1-one (named trichocarpol E, 5) were isolated from the roots of Rhus trichocarpa together with a known compound, 4-(2,6-dihydroxy-4-methoxyphenyl)-4-oxobutanoic acid (6). The cytotoxic activity of compounds 1–6 was evaluated in human gastric adenocarcinoma AGS cells and compounds 1–5 showed significant cytotoxicity. Our results suggest that *R.* trichocarpa, especially the alkyl phloroglucinol derivatives in it, is a good source of natural agents for the treatment of gastric cancer.

Biography

Ki Yong Lee has completed her PhD from Seoul National University and Postdoctoral studies from Michigan State University. She is the Associate Professor of College of Pharmacy, Korea University. She has published more than 66 papers in reputed journals.

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