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In Oriental medicine, the prescription composed of several herbal medicines has been used. It is still unclear how the sum of several extracts of anti-thirst drugs represents the total anti-lipid peroxidative action. Three anti-thirst herb medicines, *Kalopanax pictus* (K), *Pueraria thunbergiana* (P) and *Rhus verniciflua* (R), were extracted with MeOH and H_2O, respectively and the former one was fractionated into the resultant EtOAc extract. Each extract was reconstituted to give KPR-311, KPR-131 and KPR-113 where, for example, KPR-311 represents the complex of K-P-R {3:1:1 (w/w)} of the three extracts. EtOAc extract showed more potent inhibitory effect in bromobenzene-induced lipid peroxidative rats than other two extracts indicating that the fractionation brings about the increase of potency. H_2O extracts mostly showed the more potent effect than the corresponding MeOH extracts. Extract complexes were mostly found to have a slightly more potent effect than the extracts of individual crude drugs. KPR-131 of the EtOAc extract was found to be the most potent by the statistical significant degree. The effects were also supported by the decrease of aniline hydroxylase activity and aminopyrine N-demethylase activity in addition to by the increase of epoxide hydrolase. All the samples were assayed by DPPH assay, ADP/NADPH/Fe^{3+} assay and ascorbic acid/Fe^{2+} assay in vitro, respectively. The extracts or the extract complexes with increasing amount of K extract showed less in vitro activity while those of with increasing amount of R extract exhibited more activity. In vitro assay didn't showed any particularly increased activity due to the combination.

[PD2-28] [04/19/2002 (Fri) 10:00 - 13:00 / Hall E]

Cytotoxic guaianolide from the leaves of Ixeris sonchifolia

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The whole plant of *Ixeris sochifolia* Hance (Compositae) is an important food source and has been used as a folk remedy in Korea for digestive, diuretic, anti-inflammatory and anti-tumor agent. The leaves of *Ixeris sonchifolia* afforded three new guaiane type sesquiterpene lactones named 11,13α-dihydroixerin Z (1), ixerin Z 6'-*p*-hydroxyphenylacetyl ester (2). and 3,10β-dihydroxy-2-oxo-guaia-3,11(13)-dien-1α, 5α, 6α, 7αH-12,6-olide-10-*O*-β-D-glucopyranoside (3), along with two known compounds ixerin Z (4) and (*Z*)-hex-3-en-1-ol-β-D-glucopyranoside (5). The structures of the new compounds were elucidated by 1D and 2D NMR experiments. The cytotoxic effects of these compounds against human hepatocellular carcinoma cell (HepG2) and human melanoma cell (SK-MEL-2) were tested by MTT assay.

[PD2-29] [04/19/2002 (Fri) 10:00 - 13:00 / Hall E]

Sesquiterpene Lactones, Inhibitors of Farnesyl Protein Transferase, Isolated from Artemisia Sylvatica Maxim

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During the course of screening medicinal plant extracts for antitumor activity, a methanolic extract of Artemisia sylvatica Maxim. exhibited a strong inhibition activity against a farnesyl protein transferase (FPTase). Members of the Artemisia genus are growing throughout the world and important medicinal plants. Six sesquiterpene lactones from A. sylvatica, Chrysartemin(1), Artecarnin(2), 11,13-dehydrodesacetylmartricarin(3), Moxartenolide(4), Isovaleroxy moxartenolide(5), and AP-CRY(6), were isolated and their structures were determined using spectroscopic techniques. Of the six, compounds 5 and 6 were determined as new types of sesquiterpene lactones. FPTase inhibitory activities were measured against partially purified FPTase enzyme prepared from rat brain and biotin-YRASNRSCAIM acceptor peptide