

Studies on the inhibition activities of various adenosine derivatives on S-adenosylhomocysteine hydrolase

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The inhibitory activities of various analogues of adenosine (Group I, Group II, Group III, Group IV, Group V) were assayed by using recombinant human placental SAH hydrolase. The activity of the SAH hydrolase was determined by measuring the formation of AdoHcy from Ado and Hcy. AdoHcy was analyzed by HPLC using C18 reverse-phase column. The peak of AdoHcy was monitored at 258 nm. Among the tested compounds, fluoroneplanocin A (LJ-276) was the most potent inhibitor.

[PC2-10] [2003-10-10 09:00 - 13:00 / Grand Ballroom Pre-function]

Genomic Fingerprinting of genera Bifidobacterium using Microbial UniPrimer Kit

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The genera Bifidobacterium is a member of the normal intestinal flora in humans, and important in food industry. In order to test the genetic identity of this bacterial genera, four primers originated from rice genome (SRILS Microbial UniPrimers™ kit) were used in molecular typing of 7 Bifidobacterial species and 20 isolates from various source. SRILS Microbial UniPrimers™ kit were effectively applied to genomic fingerprinting of various organism such as plant, animal and microorganism. Using a total set of four primers, it was demonstrated that it may be possible to distinguish all strains and isolates of genera Bifidobacterium. Furthermore, application of this technique may also be reproducible as well as useful and faster than other methods such as phenotypic or biochemical analyses in molecular typing of this bacterial genera. Thus, PCR-fingerprinting method using SRILS UniPrimers™ kit may be applicable in the identification of isolates from various sources or classification of this bacterial genera.

[PC2-11] [2003-10-10 09:00 - 13:00 / Grand Ballroom Pre-function]

Inhibitory Effect of Ginseng on Infection and Vacuolation of Helicobacter pylori

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Panax ginseng C.A. Meyer (Family Araliaceae) was treated at low (60°C, LT), mild (100°C, MT) and high (120°C, HT) temperatures, some components (panaxytriol, ginsenosides and polysaccharides) were isolated, and their inhibitory effects on growth, infection and VacA vacuolation of Helicobacter pylori (HP) were investigated. The molecular weights of polysaccharides were decreased according to the increasing processed temperature. Ginseng polysaccharides inhibited the HP infection into KATO III cells, but did not inhibit HP growth and VacA vacuolation of HeLa cells. HT polysaccharides showed the most potent inhibition with IC₅₀ values of 6.8 mg/ml. Ginseng saponins did not inhibit the infection of HP into KATO cells. However, 20(S)-Protopanaxadiol showed the most potent inhibition of HP growth and vacuolation of HeLa by VacA toxin with IC₅₀ values of 0.05 and 0.067 mg/ml.

[PC2-12] [2003-10-10 09:00 - 13:00 / Grand Ballroom Pre-function]

Screening of New Antibiotics Inhibiting Bacterial Peptide deformylase (PDF)

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