Poster 6.03

ABMATION OF ANTIOXIDANT ACTIVITY OF TAMARINDUS INDICA EXTRACTS AND THEIR ANTICANCER EFFECT ON MCF-7 AND HEPG2 CELL LINES

Imran Fahrni Mustafiz, Azlini Abdul Aziz, and M.S Kanthimathi
Department of Molecular Medicine, Faculty of Medicine, University of Malaya, 50603, Kuala Lumpur, Malaysia.

Seed coat and flesh extracts of Tamarindus indica showed promising antioxidant properties. This study further investigated the potential antioxidant activity of various parts of T. indica extracts. The antioxidant capacity of T. indica extracts was estimated using three different colorimetric assays: 1,1-diphenyl -2-picyridhyrazyl (DPPH) radical, iron reducing activity (FRAP) and 2,2’-azinobis(3-ethylbenzothiazoline-6-sulphonic acid) (ABTS) radial assays. Among the samples tested, the methanolic extract of T. indica from (seed, flesh, leaves, vein and skin) exhibited the highest radical scavenging and iron reducing activities. Methanolic extract also showed antiproliferative properties on MCF-7 and HepG2 cancer cell lines. The results suggest that methanolic extract of T. indica possess antioxidant and anticancer activities, and thus, T. indica may be considered as a source of potential natural antioxidants and protection against cancer.

Poster 6.04

LONING OF HOMOLOGOUS SECRETION SIGNALS OF ASPERGILLUS NIGER

Azigh Abd. Wahab, Nor Muhammad Mahadi, Rosli Md. Ilia, Reginald Storms, Abdul Muniy Abdul Murad, and Farah Diba Abu Bakar
1Malaysia Genomes Institute, Ministry of Science, Technology and Innovation, MDEC-UKM Technology Centre, Bangi, Selangor; 2Department of Bioprocess Engineering, Faculty of Chemical Engineering, University of Technology Malaysia, 81300 Skudai, Johor; 3Department of Biolog, Concordia University, 7141 Sherbrooke Street West, Montreal, Quebec, H3G 1S8, Canada; 4School of Bioscience and Biotechnology, Faculty of Science and Technology, National University of Malaysia, 43600 Bangi, Selangor.
Corresponding author: jahff@hsb.my

Several prokaryotic and eukaryotic proteins are synthesized as a precursor, pre-protein, where the pre-region represents the signal peptide required for protein export. Most cases, the signal peptide acts as a transient extension to the amino terminus of the secreted protein exported via the endoplasmic recticulum/golgi pathway. The purpose of this research is to isolate homologous secretion signals of Aspergillus niger that aid improve the secretion of the protein of interest. Two genes being subjected in this research are beta glucanase A (bgI A) and xylanase B (xynB); genes that encode enzymes mainly produced by microbes. Secretion signals of these genes were predicted.