

## Antitumor activity of *Alangium salvifolium* against Dalton's ascitic lymphoma

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### Abstract

*Alangium salvifolium* (Alangiaceae) was used as folk medicine like anthelmintic, purgative, emetic, febrifuge, and for the treatment of leprosy and other skin diseases. The plant was selected for this investigation based on ethnopharmacological relevance. Anti tumor activity was tested against Dalton's ascitic lymphoma murine cell lines. Antitumor activity of methanolic extract of *Alangium salvifolium* was determined at doses of 200 and 400 mg/kg body weight orally. After 14 days treatment, mice were sacrificed and antitumor effect of methanolic extract of *Alangium salvifolium* (MEAS) assessed by evaluating tumor volume, tumor weight, viable and nonviable tumor cell count, tumor packed cell volume and hematological parameters. Evaluated the direct anticancer activity by normal peritoneal cell count and solid tumor methods. Oral administration of MEAS showed significant decrease in tumor volume, tumor weight, viable cells and increase non-viable cells. Hematological parameters (such as RBC, hemoglobin, WBC and differential count), biochemical parameters (SGPT, SGOT, Albumin, Total protein) were brought to normal values with less side effects. The results showed that methanolic extract of *Alangium salvifolium* has antitumor activity. This activity due to presence of flavonoids, alkaloids and tannins. Deoxytubulosine might be important alkaloid for its antitumor activity. It has less side effects than standard drug.

**Keywords:** *Alangium salvifolium*; Dalton's ascitic lymphoma; SGPT; SGOT

### Introduction

Cancer is the name for a group of more than 100 diseases in which cells in a part of the body begin to grow out of control. Although there are many kinds of cancer, they all start because abnormal cells grow out of control. Untreated cancers can cause serious illness and even death. Several methods exist for the treatment of cancer in modern medicine. These include chemotherapy, radiotherapy and surgery. Chemotherapy is now considered as the most effective method of cancer treatment. However, most cancer chemotheraputants severely affect the host normal cells (Mascarenhas, 1994). Hence, the use of natural products now