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Tissue factor (TF) is a cell surface receptor of coagulation factor VII and is the principal initiator of the vertebrate coagulation cascade. TF is found in high levels in some organs such as brain, lung and placenta, whereas blood monocytes, endothelial cells contain only trivial amount of TF when quiescent, and is stimulated to synthesize TF by infections or vascular lesions. TF is reported to be found in high levels in atherosclerotic plaques, cancer cells. TF activation in various cells in many infectious or immunologic diseases tells us the physiologic importance of TF. We screened many edible vegetables for TF inhibitor, by measuring the prothrombin time to detect the TF activity, and we picked *Aster scaber* to isolate the TF inhibitory substance. *Aster scaber* showed two kinds of antithrombotic activity, one is TF inhibition and the other is elongation of plasma recalcification time. The antithrombotic substances were found to be saponins which has echinocystic acid as aglycone.