Research has been done to determine the perscreening test for anticancer activity of diethyl ether and methanolic extracts of Marchantia cf planiloba Steph using Brine Shrimp Lethality Test (BST) method. Extracts were made by maceration of the materials by step. The bioassay has been done using 48 hours old Artemia salina Leach. The effect of diethyl ether and methanolic extracts were identified by determining and analysing the shrimp death percentage and LC50 of each extracts using probit analysis. The result showed that both extracts were toxic against Artemia salina Leach with the LC50 of methanolic and diethyl ether extracts were 247.10±5.28µg/ml and 453.16±3.66µg/ml respectively. The thin layer and densitometry chromatogram profile of the active extract suggested that the extract contains steroid and glycoside steroid compound.