**Abstract**

The present study is focused on identification and characterization of phosphate solubilizing microorganisms. Phosphate solubilization by microbes in soil is an important process for the abundance of phosphate in available format helps in eradication of phosphate deficiency in plants. The dissolution of inorganic phosphate by microbial communities including fungi is though common under in vitro conditions; the performance of phosphate solubilizing microbes in situ has been contradictory. Therefore, acquiring insightful knowledge in plant associated organisms may help in solubilization of mineral phosphorous for easy uptake by the plants. Fungi have the ability to solubilize phosphorous by production of organic acids and are known to have a higher efficiency of solubilization than bacteria. A sterile rhizospheric fungus was isolated from rhizospheric soil of spathoglottisplicata and was found to be dominant with highest phosphate solubilization capacity. The fungus is identified through its morphological features and molecular characterization by partial rDNA-ITS sequence analysis. Based on BLAST search analysis the fungus was found closest homolog to humiculasp, with maximum identity of 98%.