

Secondary Metabolite Analysis and Somatic Embryogenesis Induction of *Rhynchosstylis retusa* (L.) BLUME

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ABSTRACT

The aimed of this research is to know the effect of soaking explants in ascorbic acid and adding of activated charcoal on the tissue culture media to promote *Rhynchosstylis retusa* callus formation.

It's an experimental research, consist three factors that is immersion explants in ascorbic acid (soaked and not soaked) and addition of activated charcoal (pro-analysis and commercial) on the tissue culture. The source of explants for callus induction are *Rhynchosstylis retusa* orchids plants used on 18 months after planting (bst) in in vitro cultures. The parameters was observed after eight weeks after culture are: level of browning explants, number of explants forming callus, percentage of explants that form callus, time of appearing callus, and callus size.

The addition of activated charcoal (pro-analysis and commercial) on the tissue culture media could forming *R. retusa* callus formation on root and leaf explants. The combination of treatments with immersion explants in ascorbic acid and addition of activated charcoal can increase of callus formation. The root explants provide the highest callus (0,563 mm) and leaf explants can produces callus 0,298 mm.

Kata Kunci: *callus, ascorbic acid, activated charcoal, Rhynchosstylis retusa, culture in vitro*