

카사바 잎 절편 유래 체세포배 배양시 배지조성이 기내 식물체 재분화에 미치는 영향

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Effect of Medium Composition on *in Vitro* Shoot Regeneration from Leaves of Cassava (*Manihot esculenta* Crantz) Through Somatic Embryogenesis and Callus Induction

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The Cassava (*Manihot esculenta* Crantz) is a tropical root crop, originally from Amazonia, that provides the staple food of an estimated 800 million people worldwide. It belongs to the family Euphorbiaceae which also includes rubber (*Hevea brasiliensis*) and castor bean (*Ricinus communis*). Among tropical crops, rice, sugarcane, maize and cassava are the most important sources of calories for human consumption. Problems in the propagation of cassava are virus diseases and low rates of seed germination. So we tried to optimize protocols for mass production of somatic embryo amenable to large-scale vegetative propagation of Cassava. After *in vitro* eight-week culture of leaves of Cassava, the medium which contained the 2,4-D, BAP and IBA showed the highest callus induction rate, embryogenesis callus formation rate and somatic embryo formation in Cassava culture. In the medium with GA₃ and myo-inositol, shoots were most vigorously regenerated from somatic embryos of Cassava. Our experiments confirmed that *in vitro* growth and multiplication of plantlets could depend on its reaction to the different medium composition, and this micropropagation techniques could be a useful system for healthy and vigorous plant production.

주요어: Cassava, somatic, *in vitro*, embryogenesis

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