

An Effective Sterilisation Protocol for Micropropagation of *Kaempferia Parviflora*

Wall Ex Baker

ABSTRACT

Kaempferia parviflora Wall. Ex Baker (Black Ginger) is a tropical Asian medicinal plant that is extensively used in herbal medicine to treat various diseases and in promoting well-being. The source of the rhizomes for field plating is limited due to the overcollection of the wild population and the time taken to obtain matured rhizomes is long. Propagation of the species through tissue culture technique is the fast method to solve this problem. An effective sterilisation method of explants is a prerequisite for establishing any tissue culture protocol. Rhizome buds of *K. parviflora* Wall. Ex Baker were exposed to a total of eight sterilisation methods consisting of various combinations of hydrogen peroxides, Chlorox and chlorine dioxide. The highest clean culture (50%) was obtained from the treatment containing 75% ethanol (45 seconds), 5% hydrogen peroxide (10 minutes), 20% Clorox + Tween 20 (10 minutes) and 1 g/L chlorine dioxide (20 minutes). This protocol was reproducible and allowed for the establishment of tissue culture of the species.