
ISBN 974-16-1877-8

*In vitro* germplasm preservation of *Vanda lilacina* Teijsm. & Binnend. a wild type orchid, were conducted by limiting growth and freezing by encapsulation-vitrification method. Growth limiting factors were paclobutrazol (a growth retardant reagent), mannitol (an osmosis reductant), low temperature and nutrient-limited media. Results of storage protocom of *Vanda lilacina* Teijsm. & Binnend. for 2 months revealed that, in the period of storage, protocom cultured with 2 ppm. paclobutrazol showed the same vigor as that of cultured on media without paclobutrazol and had 93.51 survival percentage. Shoot and callus formation of protocom stored at low temperature (10 and 15 degree celcius) were inhibited but root formation was induced. On the other hand, high induction of shoot, callus and root were observed in protocom stored by using paclobutrazol and nutrient-limited media. The most weakest protocom were found in those stored using mannitol. After stored by using various factors and cultured on normal media, protocom stored by using paclobutrazol showed the highest recovery. In the study of cryopreservation by encapsulation-vitrification, protocom using 20 ppm. glutathione reduced with LS (loading solution) and PVS2 without submergence in liquid nitrogen showed the highest survival percentage. Protocom loaded in loading solution for 20 minutes, in PVS2 for 3.5 hr with 20 ppm. glutathione reduced after submergence in liquid nitrogen showed the highest vigor at 3 weeks and then protocom turned into white and could not grow.

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21 / 05 / 06