

## Somatic Embryogenesis and Plant Regeneration from Petal Culture of *Ornithogalum narbonense*

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### Objectives

We have tried to find an efficient, rapid and reliable method for somatic embryogenesis and plant regeneration using petal explants of *Ornithogalum narbonense*.

### Materials and Methods

1. Plant Material; Young petal explants of *Ornithogalum narbonense*.
2. Methods; Small pieces of petals(0.5 x 1.5-2.0 cm) were cultured either continuously on MS medium containing 0.1 mg/L to 3.0 mg/L 2,4- D and BA, or NAA and BA.

### Results and Discussion

A plant regeneration method through somatic embryogenesis and direct shoot regeneration of *Ornithogalum narbonense* were developed. Starting from immature petals high frequency embryogenic callus induction was obtained on MS basal medium containing various plant growth regulators. On MS medium supplemented with 0.1 mg/L 2,4-D and 1.0 mg/L BA was the best responsive for embryogenic calli induction and somatic embryos development. The range of embryogenesis frequency was 30-50%, depending on plant growth regulators. Following transfer to plant growth regulators free medium, these embryos germinated. Direct shoot regeneration was obtained in 70-90% of the petal explants following transfer to a MS medium with 0.5 mg/L NAA and 1.0 mg/L BA. A large percentage of somatic embryos and regenerated shoots developed into normal regenerated plants.