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## Plantlet Regeneration in *Abies cilicica* Carr. and *Abies cilicica* x *Abies nordmanniana* Hybrid via Somatic Embryogenesis

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**Abstract:** Somatic embryogenesis was initiated from immature zygotic embryos of *Abies cilicica* Carr. and its hybrid *A. cilicica* x *A. nordmanniana*. Schenk and Hildebrandt medium (SH) supplemented with 5 µM benzylaminopurine was used as the initiation medium. In *A. cilicica*, the initiation of embryonal suspensor mass (ESM) frequency ranged from 5.4 to 63.5%, and 28.6% of these cell lines formed mature somatic embryos. In *A. cilicica* x *A. nordmanniana*, from 3 to 27.6% of zygotic embryos formed ESM, and maturation of somatic embryos was observed in 34.8% lines. For somatic embryo maturation, Murashige, Skoog and SH media supplemented with 4% maltose and 10% polyethylene glycol-4000 were used. For maturation, 80 µM abscisic acid was most effective. After three weeks of partial desiccation, mature embryos germinated on SH medium with 1% sucrose and 1% activated charcoal, and plantlets with cotyledons, hypocotyls and radicles were obtained.

 [Keywords](#)  
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