

**Supplementary Table S3.** Study on *in vitro* production methods of *Gloriosa superba* L. via indirect organogenesis in various callus-derived explants<sup>[1]\*</sup>.

Sr. No	Explant(s) of interest	The best treatment for callus induction	Final goal	Best treatment for achieving the final goal	Shoot initiation percentage (%)
1	Roots	MS basal media + 4.52 $\mu$ M 2,4-D + 2.32 $\mu$ M KN  <u>Media conditions:</u> 2.5% sucrose, 0.8% (w/v) agar, pH of 5.8, 23 $\pm$ 1 $^{\circ}$ C, 16/8-hour light/dark	Shoot morphogenesis	MS basal media + 9.84 $\mu$ M 2iP + 1.16 $\mu$ M KN  <u>Media conditions:</u> 2.5% sucrose, 0.8% (w/v) agar, pH of 5.8, 23 $\pm$ 1 $^{\circ}$ C, 16/8-hour light/dark	-
2	Young leaves	MS basal media + 4.52 $\mu$ M 2,4-D + 2.32 $\mu$ M KN  <u>Media conditions:</u> 2.5% sucrose, 0.8% (w/v) agar, pH of 5.8, 23 $\pm$ 1 $^{\circ}$ C, 16/8-hour light/dark	Shoot morphogenesis	MS basal media + 2iP 9.84 $\mu$ M + ADS 5.44 $\mu$ M  <u>Media conditions:</u> 2.5% sucrose, 0.8% (w/v) agar, pH of 5.8, 23 $\pm$ 1 $^{\circ}$ C, 16/8-hour light/dark	-
3	Stems	MS basal media + 4.52 $\mu$ M 2,4-D + 2.32 $\mu$ M KN  <u>Media conditions:</u> 2.5% sucrose, 0.8% (w/v) agar, pH of 5.8, 23 $\pm$ 1 $^{\circ}$ C, 16/8-hour light/dark	Shoot morphogenesis	MS basal media + 4.44 $\mu$ M BA + 4.64 $\mu$ M KN  <u>Media conditions:</u> 2.5% sucrose, 0.8% (w/v) agar, pH of 5.8, 23 $\pm$ 1 $^{\circ}$ C, 16/8-hour light/dark	-
4	Pedicels	MS basal media + 4.52 $\mu$ M 2,4-D + 2.32 $\mu$ M KN  <u>Media conditions:</u> 2.5% sucrose, 0.8% (w/v) agar, pH of 5.8, 23 $\pm$ 1 $^{\circ}$ C, 16/8-hour light/dark	Shoot morphogenesis	8.88 $\mu$ M BA + 9.28 $\mu$ M KN (more shoots developed but they were not healthy)  5.44 $\mu$ M ADS + 9.28 $\mu$ M KN (less shoots developed but they were healthier)	-
5	Corm buds (dormant and non-dormant)	MS basal media + 4.52 $\mu$ M 2,4-D + 2.32 $\mu$ M KN  <u>Media conditions:</u> 2.5% sucrose, 0.8% (w/v) agar, pH of 5.8,	Shoot morphogenesis	MS basal media + 9.84 $\mu$ M 2iP + 4.64 $\mu$ M KN  <u>Media conditions:</u> 2.5% sucrose, 0.8% (w/v) agar, pH of 5.8,	-

		23±1°C, 16/8-hour light/dark		23±1°C, 16/8-hour light/dark	
6	Shoot tips	MS basal media + 4.52 µM 2,4-D + 2.32 µM KN  <u>Media conditions:</u> 2.5% sucrose, 0.8% (w/v) agar, pH of 5.8, 23±1°C, 16/8-hour light/dark	Shoot morphogenesis	MS basal media + 17.76 µM BA + 2.32 µM Kin  <u>Media conditions:</u> 2.5% sucrose, 0.8% (w/v) agar, pH of 5.8, 23±1°C, 16/8-hour light/dark	-

\* Sterilized seeds were placed on MS basal medium supplemented with 1% sucrose, 1.44 µM GA<sub>3</sub>, and 4.44 µM BA. For germination, such seeds were incubated at 24 ± 2°C and 16-h photoperiod, with a photosynthetic photon flux of approximately 70 µmol m<sup>-2</sup> s<sup>-1</sup>. After germination, the seedlings were sub-cultured every 2 weeks for the production of erect shoots, and finally, the plants were maintained on MS medium supplemented with 2.72 µM adenine sulfate (ADS). Explants for micropropagation were taken from such plants.

(-) means data was not documented in the study

## REFERENCE

[1] Sivakumar G, Krishnamurthy KV. 2004. *In Vitro* Organogenetic Responses of *Gloriosa superba*. *Russian Journal of Plant Physiology* 51:713–721. doi: 10.1023/B:RUPP.0000040761.45363.75.