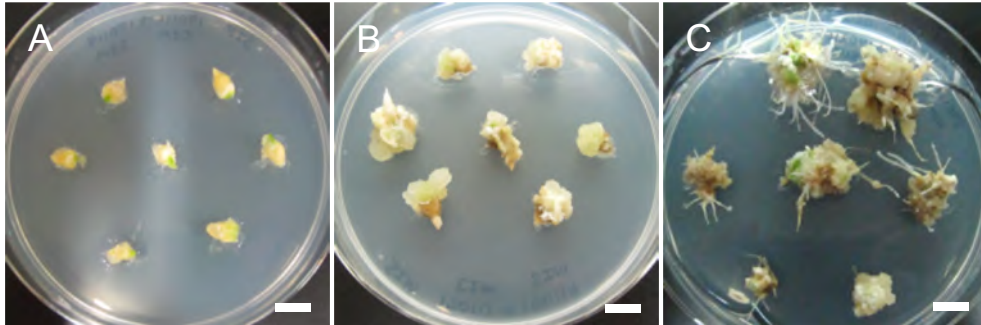


**Supplementary Table 1. Callus induction and shoot regeneration from germinated seeds and hypocotyls.**

	Seed	Hypocotyl			
		Vertically	Horizontally	Horizontally (split)	Chopped
Rate of callus formation (callus/explant)	87% (80/92)	93% (52/56)	87% (110/127)	30% (13/44)	52% (73/140)
Rate of shoot regeneration	0%	0%	0%	0%	0%



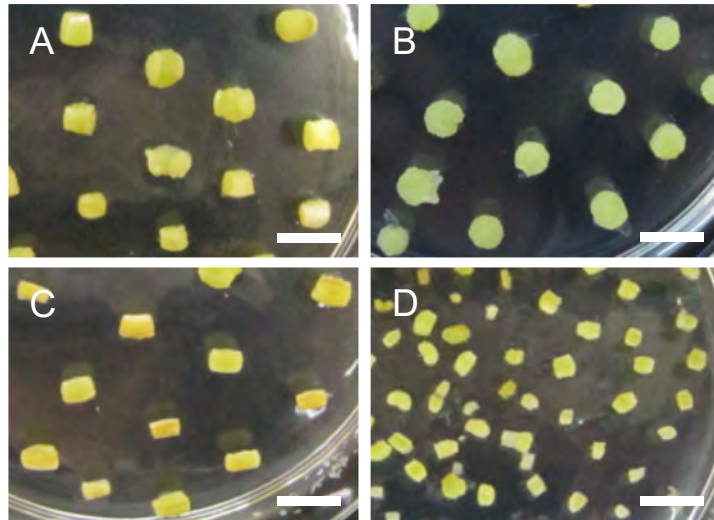
**Supplementary Figure 1. Shoot induction from kenaf seed.**

(A) Kenaf calli were induced from seeds by cultivating on CIM for one week.

(B) Calli cultivated on SIM for one week.

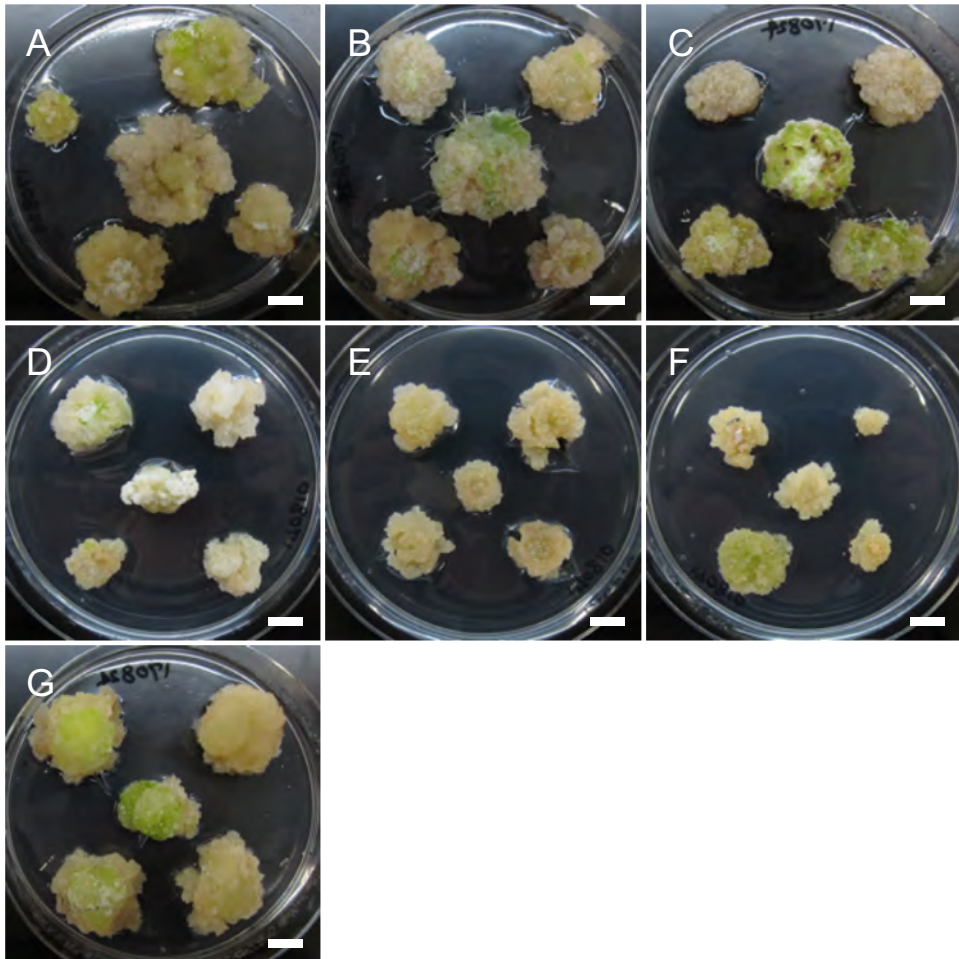
(C) Calli cultivated on SIM for four weeks.

Bars = 10 mm.



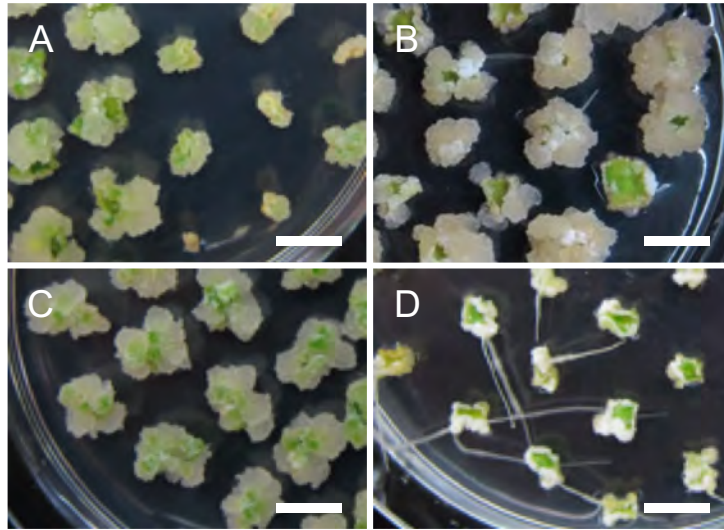
**Supplementary Figure 2. Callus induction from hypocotyl.**

Fragmented hypocotyls were cultivated on CIM for one week by placing them on CIM horizontally (A), vertically (B), or horizontally after splitting longitudinally, or by placing on CIM after chopped (D). Bars = 10 mm.



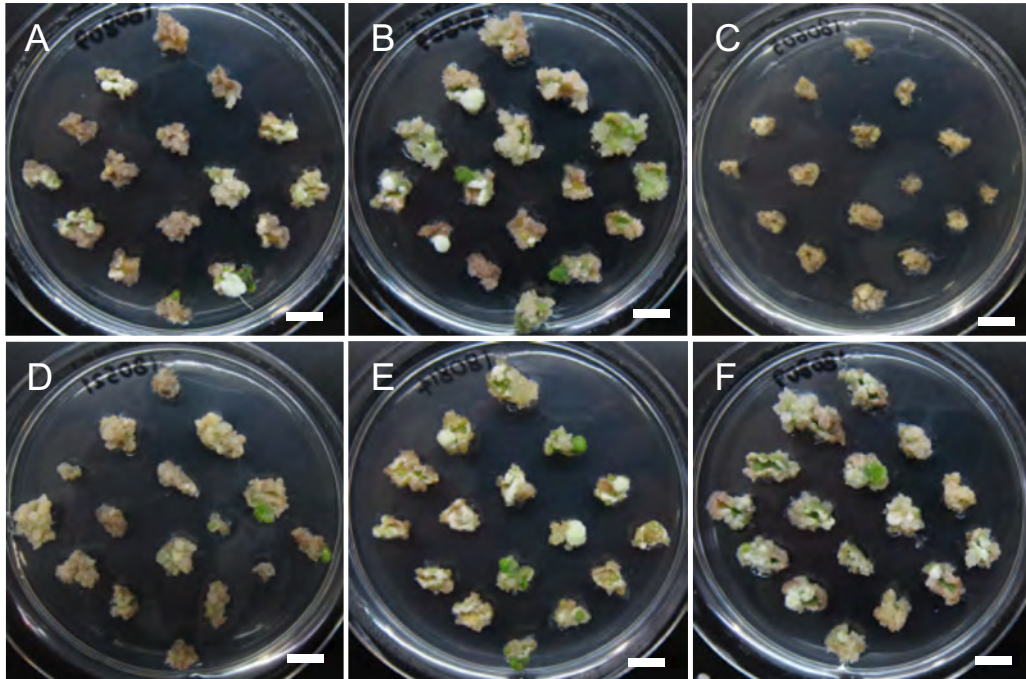
**Supplementary Figure 3. Effect of auxin and cytokinin on shoot induction from kenaf hypocotyl.**

Calli induced from hypocotyls were cultivated on SIM containing 0.1 mg L<sup>-1</sup> BA and 0.3 mg L<sup>-1</sup> IAA (A), 1.0 mg L<sup>-1</sup> BA and 0.3 mg L<sup>-1</sup> IAA (B), 5.0 mg L<sup>-1</sup> BA and 0.3 mg L<sup>-1</sup> IAA (C), 0.1 mg L<sup>-1</sup> CPPU and 0.3 mg L<sup>-1</sup> IAA (D), 1.0 mg L<sup>-1</sup> CPPU and 0.3 mg L<sup>-1</sup> IAA (E), 5.0 mg L<sup>-1</sup> CPPU and 0.3 mg L<sup>-1</sup> IAA (F), or 1.0 mg L<sup>-1</sup> trans-Zeatin and 0.3 mg L<sup>-1</sup> IAA (G) for four weeks. Bars = 10 mm.



**Supplementary Figure 4. Effect of auxin and cytokinin on callus induction from kenaf cotyledon.**

Calli were induced from cotyledon pieces on CIM containing 1.5 mg L<sup>-1</sup> BA (A), 1.5 mg L<sup>-1</sup> BA and 0.005 mg L<sup>-1</sup> IBA (B), 1.5 mg L<sup>-1</sup> BA and 0.01 mg L<sup>-1</sup> IBA (C), or 1.5 mg L<sup>-1</sup> BA and 0.05 mg L<sup>-1</sup> IBA (D) by cultivating for three weeks. Bars = 10 mm.



**Supplementary Figure 5. Effect of auxin and cytokinin on shoot induction from kenaf cotyledon.**

Calli induced from cotyledons were cultivated on SIM containing 0.5 mg L<sup>-1</sup> BA and 0.05 mg L<sup>-1</sup> IBA (A), 1.0 mg L<sup>-1</sup> BA and 0.05 mg L<sup>-1</sup> IBA (B), 1.5 mg L<sup>-1</sup> BA (C), 1.5 mg L<sup>-1</sup> BA and 0.01 mg L<sup>-1</sup> IBA (D), 1.5 mg L<sup>-1</sup> BA and 0.05 mg L<sup>-1</sup> IBA (E), or 2.0 mg L<sup>-1</sup> BA and 0.05 mg L<sup>-1</sup> IBA (F) by cultivating for four weeks. Bars = 10 mm.