Table S1: Concentration of various plant growth regulators and antibiotics used.

Growth Regulators/ Antibiotics	Abbreviations	Solvents	Stock concentration	Working concentration
N^{6}-Benzyl amino purine	BAP	1N NaOH	1 mg/ml	2.5 mg/L
6-Furfuryl amino purine (Kinetin)	Kn	1N NaOH	1 mg/ml	1 mg/L
alpha- Naphthalene acetic acid	NAA	Absolute alcohol	1 mg/ml	0.5 mg/L
2,4-Dichlorophenoxyacetic acid	2,4-D	Absolute alcohol	---	2.5 mg/L
CEFOTAXIME SODIUM	Cefotaxime	Water	250 mg/ml	300 mg/L
TICARCILLIN DISODIUM / CLAVULANATE POTASSIUM	Timentin	Water	200 mg/ml	200 mg/L
3/5-Dimethoxy-4-Hydroxyacetophenone	Acetosyringone	DMSO	Freshly prepared	150 μM
Kanamycin	Kanamycin	Water	50 mg/ml	50 mg/l
Rifampicin	Rifampicin	Methanol	12.5 mg/ml	12.5 mg/l

Table S2: Effect of supplement of hormones 2,4-D and 6-BAP on embryogenic calli induction in CIM media of MTU1010 mega rice variety.

Hormones Concentration	Replicates	No. of seeds inoculated	No. of seeds produced callus	Total no of embryogenic calli generated	Embryogenic callus induction (%)
CIM + (2.5 mg/L 2,4-D)	**R1**	100	79	73	73
	R2	120	91	86	71.6
	R3	140	140	91	65.1
CIM+ (2.5mg/L 2,4-D + 0.25mg/L BAP)	**R1**	100	94	92	92
	R2	120	118	111	92.5
	R3	125	125	112	89.6

Embryogenic calli generation (%) = no. of embryogenic calli regenerated/no. of calli incubated × 100.

Table S3: Data represents the regeneration and transformation efficiency in different resuspension medium. Data shown are mean of three individual experiments.

Resuspension medium	Pre-incubated agrobacterium culture+acetosyringone	No. of calli used for transformation	No. of plantlet regenerated	Total number of Hyg^R plantlets	Regeneration frequency (a) (%)	Transformation efficiency (b) (%)
Full MS	**0 min**	250	21 ± 2.27	15 ± 1.69	7.9 ± 0.89	6.4 ± 0.67
	10 min	185	15 ± 0.72	14 ± 0.54	9.1 ± 0.38	7.5 ± 0.29
	30 min	200	35 ± 1.18	31 ± 1.18	17.5 ± 0.29	15.5 ± 0.59
1/2 MS	**0 min**	230	84 ± 1.78	74 ± 1.65	36.8 ± 0.77	32.5 ± 0.71
	10 min	200	86 ± 1.51	76 ± 1.44	43 ± 0.75	38.3 ± 0.72
	30 min	220	99 ± 2.27	91 ± 1.44	46.3 ± 0.96	41.9 ± 0.65
1/4 MS	**0 min**	250	91 ± 1.24	85 ± 1.88	36.9 ± 0.84	33.2 ± 0.85
	10 min	220	101 ± 0.98	92 ± 1.88	46.1 ± 0.81	40 ± 1.03
	30 min	200	101 ± 1.18	88 ± 0.78	50.7 ± 0.59	44.3 ± 0.30

(a) Regeneration frequency%= (Number of plantlets regenerated/Number of microcalli incubated) × 100

(b) Transformation efficiency%= (Number of hygromycin resistant plants/Number of calli co-cultivated with Agrobacterium) ×100

Table S4: Optimization of different hormones of the regeneration medium and its effects on regeneration frequency %.

Regeneration medium		Replicates	No. of calli used for transformation	No. of plantlet regenerated	Regeneration frequency (%)
3 mg/L BAP+ 0.5mg/L NAA	**Non-transformed calli**	**R1**	150	120	80
		R2	120	99	82.5
		R3	115	90	78.26
2.5 mg/L BAP+ 1mg/L Kinetin + 0.5 mg/ L NAA		**R1**	100	89	89
		R2	120	111	92.5
		R3	140	128	91.4
3 mg/L BAP+ 0.5mg/L NAA	**Transformed calli**	**R1**	110	33	30
		R2	108	24	22.2
		R3	145	43	29.6
2.5 mg/L BAP+ 1mg/L Kinetin + 0.5 mg/ L NAA		**R1**	125	52	41.6
		R2	100	41	41
		R3	150	64	42.6