

Plant Cultured Cell Lines Preserved in RIKEN BRC*

Plant name	Cell line	BRC No.	Species	Specific features (provided by the depositors)	Medium type	Restriction**
Amaranth	H440	rpc00065	<i>Amaranthus</i>	Cells maintained without plant hormones, betacyanin production (dark red)	gellan gum	
<i>Arabidopsis</i>	T87	rpc00008	<i>Arabidopsis thaliana</i>	Accession Columbia, partial chloroplast development under the light condition	liquid	
	YG1	rpc00050	<i>Arabidopsis thaliana</i>	Accession Columbia, cells maintained under the dark condition	liquid	b
	gnom	rpc00055	<i>Arabidopsis thaliana</i>	Cell line derived from <i>gnom</i> mutant	agar	a
	At tom	rpc00056	<i>Arabidopsis thaliana</i>	Accession Columbia <i>tom1</i> (EMS) <i>tom3</i> (EMS) <i>thh1</i> (T-DNA) triple mutant, inhibition of tobamovirus multiplication	liquid	b
	MM2d	rpc00103	<i>Arabidopsis thaliana</i>	Cell cycle synchronization, genetic transformation	liquid	a
	MM2d-LS	rpc00104	<i>Arabidopsis thaliana</i>	MM2d-derived cell line, Cell cycle synchronization, genetic transformation	liquid	a
	YG1-c	rpc00111	<i>Arabidopsis thaliana</i>	Callus cell line derived from YG1 suspension cell line, cells maintained under the dark condition	gellan gum	
	At tom-c	rpc00112	<i>Arabidopsis thaliana</i>	Callus cell line derived from At tom suspension cell line, inhibition of tobamovirus multiplication	gellan gum	
<i>Asparagus</i>	A.pas	rpc00023	<i>Asparagus pastorianus</i>	–	agar	
	A.per	rpc00022	<i>Asparagus persicus</i>	–	agar	
	A.plo	rpc00024	<i>Asparagus plocamoides</i>	–	agar	
	Asp-86	rpc00010	<i>Asparagus officinalis</i>	[not available]	agar	
<i>Athyrium</i>	AY-01	rpc00100	<i>Athyrium yokoscense</i>	Fern cell line, high cadmium tolerance	liquid	
Bamboo	Pb	rpc00048	<i>Phyllostachys bambusoides</i>	High accumulation of β -1,3-glucan in cell wall	liquid	
	Pn	rpc00047	<i>Phyllostachys nigra</i>	High accumulation of β -1,3-glucan in cell wall	liquid	
<i>Bruguiera</i>	BsLs	rpc00087	<i>Bruguiera sexangula</i>	Suspension cell line derived from a mangrove species, high salt tolerance	liquid	
Carrot	kurodagosun	rpc00002	<i>Daucus carota</i>	Embryogenic cells	liquid	
	NC	rpc00101	<i>Daucus carota</i>	Non-embryogenic cells	liquid	
<i>Ceratopteris</i>	Cr-AH	rpc00102	<i>Ceratopteris richardii</i>	Fern cell line	liquid	a + b
Cherry tree	Co460	rpc00053	<i>Prunus</i> \times <i>yedoensis</i>	Cells maintained without plant hormones, anthocyanin production (dark red)	gellan gum	
<i>Commelina</i>	TA416	rpc00068	<i>Commelina communis</i>	Cells maintained without plant hormones, anthocyanin production (dark blue)	gellan gum	
<i>Coptis</i>	Cj	rpc00054	<i>Coptis japonica</i>	High berberine production and accumulation in vacuoles	agar	

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	156-S	rpc00069	<i>Coptis japonica</i>	Transgenic cell line over-expressing <i>Coptis SMT</i> gene, high berberine production (yellow)	liquid	
Dandelion	ToF	rpc00064	<i>Taraxacum officinale</i>	Anthocyanin production (dark purple)	agar	
<i>Duboisia</i>	Dm	rpc00059	<i>Duboisia myoporoides</i>	Naringenin glycosylation, tropine acetylation, conversion of L-rhamnose to D-glucose	agar	
<i>Glehnia</i>	GIW	rpc00057	<i>Glehnia littoralis</i>	Anthocyanin-non-producing (white) cells, production of coumarin derivatives by stress treatment	agar	
<i>Glehnia</i>	GIV	rpc00058	<i>Glehnia littoralis</i>	Anthocyanin-producing (violet) cells, production of coumarin derivatives	agar	
Grape	VR	rpc00003	<i>Vitis</i>	High anthocyanin production	agar	
	VW	rpc00004	<i>Vitis</i>	Low anthocyanin production	agar	
	YU-1	rpc00049	<i>Vitis vinifera</i>	Vigorous cell growth	liquid	b
	YU-1-c	rpc00110	<i>Vitis vinifera</i>	Callus cell line derived from YU-1 suspension cell line, vigorous cell growth	gellan gum	
Liquorice	Ge	rpc00060	<i>Glycyrrhiza echinata</i>	Retrochalcone production (yellow) by elicitor treatment	agar	
	Ak-1	rpc00061	<i>Glycyrrhiza echinata</i>	Medicarpin production by elicitor treatment	agar	
<i>Lotus</i>	Lj	rpc00032	<i>Lotus japonicus</i>	[preparing]	liquid	
	LjA	rpc00033	<i>Lotus japonicus</i>	–	agar	
	LjmA	rpc00034	<i>Lotus japonicus</i>	–	agar	
Mint	Mar-1	rpc00013	<i>Mentha arvensis</i>	High alkaline phosphodiesterase activity	agar	
Peach	P468	rpc00066	<i>Prunus persica</i>	Cells maintained without plant hormones, anthocyanin production (dark red)	gellan gum	
Periwinkle	CRA	rpc00014	<i>Catharanthus roseus</i>	–	liquid	
	V208	rpc00015	<i>Catharanthus roseus</i>	Crown gall cells (<i>Agrobacterium tumefaciens</i> A208), brassinosteroid production	liquid	
Pokeweed	PAR	rpc00005	<i>Phytolacca americana</i>	High betacyanin production (red)	agar	
	PAP	rpc00006	<i>Phytolacca americana</i>	Moderate betacyanin production (pink)	agar	
	PAW	rpc00007	<i>Phytolacca americana</i>	Low betacyanin production (white)	agar	
Puccoon	M18-1	rpc00037	<i>Lithospermum erythrorhizon</i>	High shikonin production	agar	
	OM	rpc00038	<i>Lithospermum erythrorhizon</i>	Low shikonin production	agar	
Rice	OS-1	rpc00020	<i>Oryza sativa</i>	–	agar	
	Oc	rpc00031	<i>Oryza sativa</i>	Cells used for nurse culture, phytosulphokine- α production, high capacity to convert IAM to IAA	liquid	
Sesame	PSB	rpc00025	<i>Sesamum indicum</i>	–	agar	

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	PSW	rpc00026	<i>Sesamum indicum</i>	–	agar	
	PSG	rpc00027	<i>Sesamum indicum</i>	–	agar	
Soybean	DG330	rpc00051	<i>Glycine max</i>	Cells maintained without plant hormones, daidzein and genistein production	gellan gum	
Spinach	Spi-WT	rpc00016	<i>Spinacia oleracea</i>	–	liquid	
	Spi-I-1	rpc00017	<i>Spinacia oleracea</i>	Nitrate reductase deficiency	agar	
	Spi-12F	rpc00018	<i>Spinacia oleracea</i>	Nitrate reductase deficiency	liquid	
Sponge gourd	LcyD6	rpc00028	<i>Luffa cylindrica</i>	–	agar	
	LcyD7	rpc00029	<i>Luffa cylindrica</i>	–	agar	
	Lcy-1	rpc00019	<i>Luffa cylindrica</i>	[not available]	agar	
Strawberry	SB489	rpc00067	<i>Fragaria × ananassa</i>	Cells maintained without plant hormones, anthocyanin production (dark red)	gellan gum	
Tobacco	G89	rpc00044	<i>Nicotiana glauca</i>	–	agar	
	BY-2	rpc00001	<i>Nicotiana tabacum</i>	Rapid cell proliferation	liquid	
	T-13	rpc00009	<i>Nicotiana tabacum</i>	Coumarin production	liquid	
	Xan-1	rpc00035	<i>Nicotiana tabacum</i>	–	agar	
	BY-2H	rpc00036	<i>Nicotiana tabacum</i>	Habituated BY-2 cell line growing without plant hormones	agar	
	GV7	rpc00039	<i>Nicotiana tabacum</i>	Transgenic BY-2 cell line expressing GFP-AtVAM3 that visualizes vacuolar membranes	liquid	a
	GF11	rpc00040	<i>Nicotiana tabacum</i>	Transgenic BY-2 cell line expressing GFP-AtFim1 that visualizes actin filaments	liquid	a
	GT16	rpc00041	<i>Nicotiana tabacum</i>	Transgenic BY-2 cell line expressing GFP-tubulin α that visualizes microtubules	liquid	a
	TBY2-AtRER1B	rpc00042	<i>Nicotiana tabacum</i>	Transgenic BY-2 cell line expressing GFP-AtRer1B that visualizes Golgi bodies	gellan gum	
	3n-3	rpc00043	<i>Nicotiana tabacum</i>	Crown gall cells (<i>Agrobacterium tumefaciens</i> A208)	agar	
	BY-TIPG	rpc00062	<i>Nicotiana tabacum</i>	Transgenic BY-2 cell line expressing NtTIP1;1-GFP that visualizes vacuolar membrane	liquid	a
	NI	rpc00084	<i>Nicotiana tabacum</i>	Photoautotrophic cell line	liquid	
	ATR-r	rpc00085	<i>Nicotiana tabacum</i>	Atrazine- and 3-(3,4-dichlorophenyl)-1,1-dimethylurea-resistant NI cell line	liquid	
	NaCl-r	rpc00086	<i>Nicotiana tabacum</i>	NaCl-adapted NI cell line	liquid	
	TBY2-31/ST	rpc00091	<i>Nicotiana tabacum</i>	Transgenic BY-2 cell line expressing GFP-AtSYP31 and ST-mRFP that visualize <i>cis</i> - and <i>trans</i> -Golgi, respectively	liquid	
TBY2-31/ST(E)	rpc00092	<i>Nicotiana tabacum</i>	Transgenic BY-2 cell line expressing estradiol-inducible GFP-AtSYP31 and estradiol-inducible ST-mRFP that visualize <i>cis</i> - and <i>trans</i> -Golgi, respectively	liquid		

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	TBY2-41/ST	rpc00093	<i>Nicotiana tabacum</i>	Transgenic BY-2 cell line expressing GFP-AtSYP41 and ST-mRFP that visualize <i>trans</i> -Golgi network and <i>trans</i> -Golgi, respectively	liquid	
	TBY2-R31	rpc00095	<i>Nicotiana tabacum</i>	Transgenic BY-2 cell line expressing mRFP-AtSYP31 that visualizes <i>cis</i> -Golgi	liquid	
	TBY2-31/41	rpc00097	<i>Nicotiana tabacum</i>	Transgenic BY-2 cell line expressing GFP-AtSYP31 and mRFP-AtSYP41 that visualize <i>cis</i> -Golgi and <i>trans</i> -Golgi network, respectively	liquid	
	topless3-GFP	rpc00098	<i>Nicotiana tabacum</i>	Transgenic BY-2 cell line expressing NtTPL3-GFP	liquid	
Tomato	Sly-1	rpc00012	<i>Solanum lycopersicum</i>	High alkaline phosphodiesterase activity [preparing]	agar	
	GCR26	rpc00045	<i>Solanum lycopersicum</i>	–	liquid	b
	GCR237	rpc00046	<i>Solanum lycopersicum</i>	Inhibition of viral RNA replication by plant resistance gene <i>Tm-1</i>	liquid	
Turmeric	Cl	rpc00052	<i>Curcuma longa</i>	Rapid cell proliferation, yellow pigment accumulation	agar	
<i>Vinca</i>	Vma-1	rpc00021	<i>Vinca major</i>	–	agar	
Watermelon	Cba-1	rpc00011	<i>Citrullus battich</i>	High alkaline phosphodiesterase activity	agar	
<i>Zinnia</i>	ZE3	rpc00030	<i>Zinnia elegans</i>	–	agar	

* Web catalog: https://plant.rtc.riken.jp/resource/cell_line/cell_line_list.html

** The details are provided on the webpage of each cell line in the web catalog. **a**: Not-for-profit academic purpose only **b**: Domestic only

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