

Table S1. Protein-coding genes of antioxidant enzymes, and enzymes involved in ASC and GSH synthesis in *U. compressa*

Gene	Annotation	Best blast hit
ucom_00009177-RA	Superoxide dismutase	<i>Prunus persica</i> (Plant)
ucom_00015047-RA	Superoxide dismutase	<i>Chlorella vulgaris</i> (Green microalgae)
ucom_00015048-RA	Superoxide dismutase	<i>Nostoc flagelliforme</i> (Cyanobacteria)
ucom_00015296-RA	Ascorbate peroxidase	<i>Brassica oleracea</i> (Plant)
ucom_00008899-RA	Ascorbate peroxidase	<i>Prunus avium</i> (Plant)
ucom_00013441-RA	Ascorbate peroxidase	<i>Brassica oleracea</i> (Plant)
ucom_00000286-RA	Ascorbate peroxidase	<i>Hevea brasiliensis</i> (Plant)
ucom_00001559-RA	Ascorbate peroxidase	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00010335-RA	Ascorbate peroxidase	<i>Chlorella sorokiniana</i> (Green microalga)
ucom_00019150-RA	Ascorbate peroxidase	<i>Phytophthora cactorum</i> (Oomycete)
ucom_00010831-RA	Ascorbate peroxidase	<i>Phytophthora fragariae</i> (Oomycete)
ucom_00019192-RA	Ascorbate peroxidase	<i>Phytophthora fragariae</i> (Oomycete)
ucom_00018857-RA	Ascorbate peroxidase	<i>Phytophthora fragariae</i> (Oomycete)
ucom_00018785-RA	Ascorbate peroxidase	<i>Vibrio parahaemolyticus</i> (Bacteria)
ucom_00013667-RA	Dehydroascorbate reductase	<i>Solanum lycopersicum</i> (Plant)
ucom_00013666-RA	Dehydroascorbate reductase	<i>Solanum lycopersicum</i> (Plant)
ucom_00006276-RA	Glutathione reductase	<i>Salvia splendens</i> (Plant)
ucom_00003402-RA	Glutathione reductase	<i>Solanum chilense</i> (Plant)
ucom_00002512-RA	Glutathione peroxidase	<i>Zea mays</i> (Plant)
ucom_00012289-RA	Glutathione peroxidase	<i>Lapillicoccus jejuensis</i> (Bacteria)
ucom_00001838-RA	Glutathione peroxidase	<i>Geobacillus genomosp</i> (Bacteria)
ucom_00002178-RA	Peroxiredoxin	<i>Gossypium barbadense</i> (Plant)
ucom_00006242-RA	Peroxiredoxin	<i>Chlorella vulgaris</i> (Green microalga)
ucom_00010225-RA	Peroxiredoxin	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00006241-RA	Peroxiredoxin	<i>Chlorella vulgaris</i> (Green microalga)
ucom_00007955-RA	Peroxiredoxin	<i>Cyanobacterium sp.</i> (Cyanobacteria)
ucom_00000755-RA	Peroxiredoxin	<i>Raphidocelis sp.</i> (Green Microalga)
ucom_00005297-RA	Peroxiredoxin	<i>Helicoverpa armigera</i> (Insect)
ucom_00003553-RA	Peroxiredoxin	<i>Leptospira interrogans</i> (Bacteria)
ucom_00011880-RA	Peroxiredoxin	<i>Chloroflexi bacterium</i> (Bacteria)
ucom_00004014-RA	Peroxiredoxin	<i>Vibrio parahaemolyticus</i> (Bacteria)
ucom_00005052-RA	L-galactono-lactone dehydrogenase	<i>Brassica olerace</i> (Plant)
ucom_00011588-RA	L-galactose dehydrogenase	<i>Selaginella moellendorffii</i> (Plant)
ucom_00001065-RA	Glutamate-cysteine synthase	<i>Arabidopsis thaliana</i> (Plant)
ucom_00001067-RA	Glutamate-cysteine synthase	<i>Camelina sativa</i> (Plant)
ucom_00001068-RA	Glutamate-cysteine synthase	<i>Arabidopsis thaliana</i> (Plant)
ucom_00011402-RA	Glutathione synthase	<i>Solanum chilense</i> (Plant)

Table S2. Protein-coding genes involved in signal transduction in *U. compressa*

Gene	Annotation	Best blast hit
ucom_00005489-RA	MAPK1	<i>Paramecium primaurelia</i> (Ciliophora)
ucom_00014789-RA	MAPK3	<i>Raphidocelis subcapitata</i> (Green microalga)
ucom_00005113-RA	MAPK4	<i>Naegleria fowleri</i> (Excavata)
ucom_00002620-RA	MAPK5	<i>Brassica oleracea</i> (Plant)
ucom_00014385-RA	MAPK8	<i>Raphidocelis subcapitata</i> (Green microalga)
ucom_00000788-RA	MAPK9	<i>Prunus avium</i> (Plant)
ucom_00007327-RA	MAPK12	<i>Mycobacterium simiae</i> (Bacteria)
ucom_00003193-RA	MAPK14	<i>Triticum aestivum</i> (Plant)
ucom_00004185-RA	MAPKK	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00008671-RA	MAPKK	<i>Panicum virgatum</i> (Plant)
ucom_00004102-RA	MAPKKK	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00018435-RA	MAPKKK3	<i>Streptomyces</i> sp. (Bacteria)
ucom_00018435-RA	MAPKKK3	<i>Frankia irregularis</i> (Bacteria)
ucom_00013498-RA	MAPKKK6	<i>Tetrabaena socialis</i> (Green microalgae)
ucom_00001835-RA	MAPKKK10	<i>Panicum hallii</i> (Plant)
ucom_00010886-RA	MAPKKK10	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00014486-RA	MAPKKK10	<i>Phytophthora cinnamomi</i> (Oomycete)
ucom_00006679-RA	MAPKKK10	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00010433-RA	MAPKKK11	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00012934-RA	MAPKKK11	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00012529-RA	MAPKKK11	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00010433-RA	MAPKKK11	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00012934-RA	MAPKKK11	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00012529-RA	MAPKKK11	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00003193-RA	MAPKKK18	<i>Triticum aestivum</i> (Plant)
ucom_00005329-RA	MAPKKK20	<i>Planctomycetes bacterium</i> (Bacteria)
ucom_00001653-RA	MAPKKK21	<i>Auxenochlorella prototech</i> (Green microalga)
ucom_00005320-RA	MAPKKK21	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00001653-RA	MAPKKK21	<i>Auxenochlorella protothecoides</i> (Green microalgae)
ucom_00005688-RA	CDPK1	<i>Brassica carinata</i> (Plant)
ucom_00008916-RA	CDPK2	<i>Nicotiana tabacum</i> (Plant)
ucom_00013388-RA	CDPK4	<i>Solanum commersonii</i> (Plant)
ucom_00014013-RA	CDPK12	<i>Triticum aestivum</i> (Plant)
ucom_00018169-RA	CDPK15	<i>Solanum commersonii</i> (Plant)
ucom_00001967-RA	CDPK17	<i>Arabidopsis thaliana</i> (Plant)
ucom_00005689-RA	CDPK17	<i>Arabidopsis thaliana</i> (Plant)
ucom_00001561-RA	CDPK19	<i>Chlamydomonas reinhardtii</i> (Green microalga)
ucom_00011484-RA	CDPK23	<i>Solanum commersonii</i> (Plant)
ucom_00011733-RA	CDPK27	<i>Solanum commersonii</i> (Plant)
ucom_00015115-RA	CIPK1	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00017140-RA	CIPK2	<i>Chlamydomonas</i> sp (Green microalga)
ucom_00010939-RA	CIPK2	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00002198-RA	CIPK3	<i>Nostoc</i> sp. (Cyanobacteria)
ucom_00002987-RA	CIPK3	<i>Micromonospora</i> sp. (Bacteria)
ucom_00005316-RA	CIPK5	<i>Oryza sativa</i> (Plant)
ucom_00010134-RA	CIPK5	<i>Chlamydomonas</i> sp (Green microalga)
ucom_00012659-RA	CIPK5	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00018135-RA	CIPK5	<i>Verrucomicrobia</i> (Bacteria)
ucom_00007971-RA	CIPK6	<i>Verticillium longisporum</i> (Fungus)
ucom_00013170-RA	CIPK8	<i>Raphidocelis subcapitata</i> (Green microalga)

ucom_00011616-RA	CIPK9	<i>Oryza sativa</i> (Plant)
ucom_00004189-RA	CIPK10	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00016841-RA	CIPK13	<i>Verrucomicrobia</i> (Bacteria)
ucom_00011612-RA	CIPK13	<i>Verrucomicrobia</i> (Bacteria)
ucom_00003198-RA	CIPK17	<i>Oryza sativa</i> (Plant)
ucom_00011614-RA	CIPK25	<i>Verrucomicrobia</i> (Bacteria)
ucom_00010938-RA	CIPK30	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00002341-RA	CaMK	<i>Raphidocelis subcapitata</i> (Green microalga)
ucom_00002839-RA	CaMK	<i>Glycine soja</i> (Plant)
ucom_00005349-RA	CaMK	<i>Coccomyxa</i> sp. (Green microalga)
ucom_00005475-RA	CaMK	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00007621-RA	CaMK	<i>Coccomyxa</i> sp. (Green microalga)
ucom_00009041-RA	CaMK	<i>Volvox reticuliferus</i> (Green microalga)
ucom_00009668-RA	CaMK	<i>Coccomyxa</i> sp. (Green microalga)
ucom_00009925-RA	CaMK	<i>Coccomyxa</i> sp. (Green microalga)
ucom_00010519-RA	CaMK	<i>Trebouxia</i> sp. . (Green microalga)
ucom_00013170-RA	CaMK	<i>Raphidocelis subcapitata</i> (Green microalga)
ucom_00015152-RA	CaMK	<i>Ulva partita</i> (Green Macroalga)
ucom_00015869-RA	CaMK	<i>Coccomyxa</i> sp. (Green microalga)
ucom_00016998-RA	CaMK	<i>Ulva partita</i> (Green Macroalga)
ucom_00017140-RA	CaMK	<i>Raphidocelis subcapitata</i> (Green microalga)
ucom_00001613-RA	PKA	<i>Scenedesmus</i> sp. (Green microalga)
ucom_00010638-RA	PKA	<i>Trebouxia</i> sp. (Green microalga)
ucom_00009499-RA	PKG	<i>Chloropicon primus</i> (Green microalga)
ucom_00003150-RA	PKG	<i>Haematococcus lacustris</i> (Green miroalga)
ucom_00003295-RA	PKG	<i>Coccomyxa subellipsoidea</i> (Green microalga)

Table S3. Protein-coding genes of regulatory transcription factors in *U. compressa*

Gene	Annotation	Best blast hit
ucom_00007866-RA	Ethylene-responsive factor	<i>Gossypium tomentosum</i> (Plant)
ucom_00007976-RA	Ethylene-responsive factor	<i>Sorghum bicolor</i> (Plant)
ucom_00012589-RA	Ethylene-responsive factor	<i>Triticum carthlicum</i> (Plant)
ucom_00005095-RA	Ethylene-responsive factor	<i>Triticum carthlicum</i> (Plant)
ucom_00008969-RA	Ethylene-responsive factor	<i>Triticum carthlicum</i> (Plant)
ucom_00007276-RA	Ethylene-responsive factor	<i>Arabidopsis thaliana</i> (Plant)
ucom_00011467-RA	Ethylene-responsive factor	<i>Arabidopsis thaliana</i> (Plant)
ucom_00011723-RA	Ethylene-responsive factor	<i>Triticum carthlicum</i> (Plant)
ucom_00004069-RA	Ethylene-responsive factor	<i>Macleaya cordata</i> (Plant)
ucom_00004084-RA	Ethylene-responsive factor	<i>Gossypium hirsutum</i> (Plant)
ucom_00001469-RA	Ethylene-responsive factor	<i>Arabidopsis thaliana</i> (Plant)
ucom_00005424-RA	Ethylene-responsive factor	<i>Vanilla planifolia</i> (Plant)
ucom_00008223-RA	Ethylene-responsive factor	<i>Brassica cretica</i> (Plant)
ucom_00002704-RA	Ethylene-responsive factor	<i>Volvox</i> sp. (Green microalga)
ucom_00010896-RA	Myb-like	<i>Glycine soja</i> (Plant)
ucom_00018091-RA	Myb-like	<i>Ceratodon purpureus</i> (Plant)
ucom_00008077-RA	Myb-like	<i>Zingiber officinale</i> (Plant)
ucom_00006534-RA	Myb-like	<i>Citrus sinensis</i> (Plant)
ucom_00006601-RA	Myb-like	<i>Glycine max</i> (Plant)
ucom_00006031-RA	Myb-like	<i>Prunus armeniaca</i> (Plant)
ucom_00011393-RA	Myb-like	<i>Cucurbita argyrosperma</i> (Plant)
ucom_00000471-RA	Myb-like	<i>Zingiber officinale</i> (Plant)

ucom_00003291-RA	Myb-like	<i>Brassica cretica</i> (Plant)
ucom_00001695-RA	Myb-like	<i>Arabidopsis thaliana</i> (Plant)
ucom_00011503-RA	Myb-like	<i>Digitaria exilis</i> (Plant)
ucom_00003611-RA	Myb-like	<i>Gossypium hirsutum</i> (Plant)
ucom_00017619-RA	Myb-like	<i>Aureobasidium pullulans</i> (Fungus)
ucom_00002508-RA	Myb-like	<i>Athalia rosae</i> (Insect)
ucom_00005556-RA	ABA-response factor	<i>Colocasia esculenta</i> (Plant)
ucom_00000836-RA	ABA-response factor	<i>Triticum aestivum</i> (Plant)
ucom_00000839-RA	ABA-response factor	<i>Solanum tuberosum</i> (Plant)
ucom_00006887-RA	ABA-response factor	<i>Brassica rapa</i> (Plant)
ucom_00018811-RA	ABA-response factor	<i>Brassica rapa</i> (Plant)
ucom_00016800-RA	ABA-response factor	<i>Eucalyptus grandis</i> (Plant)
ucom_00015747-RA	ABA-response factor	<i>Glycine max</i> (Plant)
ucom_00017208-RA	ABA-response factor	<i>Gossypium hirsutum</i> (Plant)
ucom_00000843-RA	ABA-response factor	<i>Elaeis guineensis</i> (Plant)
ucom_00016343-RA	ABA-response factor	<i>Gossypium hirsutum</i> (Plant)
ucom_00000053-RA	ABA-response factor	<i>Cynara cardunculus</i> (Plant)
ucom_00008938-RA	Basic-helix-loop-helix	<i>Gossypium lobatum</i> (Plant)
ucom_00002004-RA	Basic-helix-loop-helix	<i>Abrus precatorius</i> (Plant)
ucom_00010047-RA	Basic-helix-loop-helix	<i>Brassica rapa</i> (Plant)
ucom_00005996-RA	Basic-helix-loop-helix	<i>Brassica rapa</i> (Plant)
ucom_00002019-RA	Basic-helix-loop-helix	<i>Trebouxia</i> sp. (Green microalga)
ucom_00006669-RA	Basic-helix-loop-helix	<i>Nannochloropsis</i> sp. (Green microalga)
ucom_00011535-RA	GTE-like 1	<i>Dioscorea cayenensis</i> (Plant)
ucom_00003840-RA	GTE-like 8	<i>Panicum hallii</i> (Plant)
ucom_00006009-RA	GTE-like 9	<i>Zingiber officinale</i> (Plant)
ucom_00012260-RA	GTE-like 10	<i>Triticum turgidum</i> (Plant)
ucom_00005927-RA	Nuclear factor Y2	<i>Vernicia fordii</i> (Plant)
ucom_00005177-RA	Nuclear factor Y2	<i>Jatropha curcas</i> (Plant)
ucom_00002150-RA	Nuclear factor C4	<i>Brassica rapa</i> (Plant)
ucom_00002619-RA	GATA-like	<i>Raphidocelis</i> sp. (Green microalga)
ucom_00012268-RA	HSTF	<i>Populus deltoides</i> (Plant)
ucom_00014452-RA	WRKY33	<i>Brassica carinata</i> (Plant)

Table S4. Protein-coding genes involved in phytohormone synthesis of *U. compressa*

Gene	Annotation	Best blast hit
ucom_00017123-RA	S-adenosylmethionine synthase	<i>Ulva partita</i> (Green macroalga)
ucom_00017541-RA	S-adenosylmethionine synthase	<i>Populus nigra</i> (Plant)
ucom_00013842-RA	ACC synthase	<i>Glycine max</i> (Plant)
ucom_00013843-RA	ACC synthase	<i>Acer yangbiense</i> (Plant)
ucom_00018965-RA	9-epoxycarotenoid dioxygenase	<i>Arabidopsis thaliana</i> (Plant)
ucom_00013375-RA	9-epoxycarotenoid dioxygenase	<i>Arabidopsis thaliana</i> (Plant)
ucom_00005184-RA	Alcohol dehydrogenase	<i>Volvox sp.</i> (Green microalga)
ucom_00003314-RA	Zeaxanthin epoxidase	<i>Chlamydomonas sp.</i> (Green microalga)

Table S5. Protein-coding genes involved cell cycle regulation in *U. compressa*.

Gene	Annotation	Best blast hit
ucom_00004603-RA	Cyclin-A1	<i>Brassica rapa</i> (Plant)
ucom_00011330-RA	Cyclin-B1	<i>Juglans regia</i> (Plant)
ucom_00010653-RA	Cyclin-B3	<i>Elaeis guineensis</i> (Plant)
ucom_00002573-RA	Cyclin-C1	<i>Zea mays</i> (Plant)
ucom_00005966-RA	Cyclin-H1	<i>Triticum dicoccoides</i> (Plant)
ucom_00001395-RA	Cyclin-L1	<i>Durio zibethinus</i> (Plant)
ucom_00012494-RA	Cyclin-P3	<i>Camellia sinensis</i> (Plant)
ucom_00010139-RA	Cyclin-S13	<i>Glycine soja</i> (Plant)
ucom_00014787-RA	CDKA1	<i>Pycnococcus provasolii</i> (Green microalga)
ucom_00000366-RA	CDKA1	<i>Vanilla planifolia</i> (Plant)
ucom_00001449-RA	CDKA1	<i>Paramecium pentastereia</i> (Ciliophora)
ucom_00003817-RA	CDKB1	<i>Phoenix dactylifera</i> (Plant)
ucom_00003822-RA	CDKB1	<i>Phoenix dactylifera</i> (Plant)
ucom_00003818-RA	CDKB1	<i>Gossypium tomentosum</i> (Plant)
ucom_00014855-RA	CDKC2	<i>Amborella trichopoda</i> (Plant)
ucom_00003451-RA	CDKC2	<i>Chloropicon primus</i> (Green microalgae)
ucom_00012285-RA	CDKC2	<i>Scyliorhinus canicula</i> (Animal)
ucom_00000668-RA	CDKD1	<i>Pimephales promelas</i> (Animal)
ucom_00000803-RA	CDKD3	<i>Camelina sativa</i> (Plant)
ucom_00000804-RA	CDKD3	<i>Brassica oleracea</i> (Plant)
ucom_00001516-RA	CDKE1	<i>Gossypium mustelinum</i> (Plant)
ucom_00003327-RA	CDKF4	<i>Mikania micrantha</i> (Plant)
ucom_00012284-RA	CDKG2	<i>Ananas comosus</i> (Plant)
ucom_00019234-RA	CDKG2	<i>Ananas comosus</i> (Plant)
ucom_00002855-RA	CDKG2	<i>Megalops cyprinoides</i> (Animal)
ucom_00005799-RA	CDKG2	<i>Gossypium mustelinum</i> (Plant)
ucom_00015736-RA	CDK1	<i>Alca torda</i> (Animal)
ucom_00013138-RA	CDK2	<i>Chiloscyllium plagiosum</i> (Animal)
ucom_00007067-RA	CDK2	<i>Penaeus vannamei</i> (Animal)
ucom_00006062-RA	CDK7	<i>Fistulifera solaris</i> (Diatom)
ucom_00012364-RA	CDK12	<i>Actinomortierella ambigua</i> (Fungus)
ucom_00012367-RA	CDK12	<i>Actinomortierella ambigua</i> (Fungus)

Table S6. Protein-coding genes involved in cell wall synthesis in *U. compressa*

Gene	Annotation	Best blast hit
ucom_00010296-RA	Cellulose synthase	<i>Carex littledalei</i> (Plant)
ucom_00003660-RA	Cellulose synthase	<i>Coccomyxa</i> sp. (Green microalga)
ucom_00007288-RA	Cellulose synthase	<i>Nostoc</i> sp. (Cyanobacteria)
ucom_00005233-RA	Cellulose synthase	<i>Demequina globuliformis</i> (Bacteria)
ucom_00011264-RA	Cellulose synthase	<i>Leuconostoc</i> sp. (Bacteria)
ucom_00001428-RA	Cellulose synthase	<i>Burkholderia ubonensis</i> (Bacteria)
ucom_00016578-RA	Cellulose synthase	<i>Bradyrhizobium</i> sp. (Bacteria)
ucom_00018845-RA	O-arabinosyltransferase	<i>Gossypium barbadense</i> (Plant)
ucom_00001778-RA	O-arabinosyltransferase	<i>Arabidopsis thaliana</i> (Plant)
ucom_00005155-RA	O-arabinosyltransferase	<i>Lotus japonicus</i> (Plant)
ucom_00019066-RA	O-arabinosyltransferase	<i>Hevea brasiliensis</i> (Plant)
ucom_00000679-RA	O-arabinosyltransferase	<i>Hevea brasiliensis</i> (Plant)
ucom_00000681-RA	O-arabinosyltransferase	<i>Hevea brasiliensis</i> (Plant)
ucom_00012754-RA	O-arabinosyltransferase	<i>Micractinium</i> sp. (Green microalga)
ucom_00013569-RA	O-arabinosyltransferase	<i>Chlamydomonas</i> sp. (Green microalga)
ucom_00012224-RA	Mannosyltransferase	<i>Arabidopsis thaliana</i> (Plant)
ucom_00006352-RA	Mannosyltransferase	<i>Dictyobacter formicarum</i> (Bacteria)
ucom_00003345-RA	UDP-glucosamine transferase	<i>Glycine max</i> (Plant)
ucom_00010669-RA	UDP-rhamnose transporter	<i>Oryza meyeriana</i> (Plant)
ucom_00004334-RA	UDP-rhamnose transporter	<i>Carex littledalei</i> (Plant)
ucom_00011580-RA	UDP-uronic acid transporter	<i>Brassica napus</i> (Plant)
ucom_00010744-RA	UDP-uronic acid transporter	<i>Brassica napus</i> (Plant)
ucom_00003648-RA	Pectin lyase	<i>Micractinium</i> sp. (Green microalga)
ucom_00009863-RA	Collagen alpha-2	<i>Culex quinquefasciatus</i> (Animal)
ucom_00013278-RA	Collagen alpha-2	<i>Eumeta japonica</i> (Animal)
ucom_00008150-RA	Collagen alpha-3	<i>Cervus canadensis</i> (Animal)
ucom_00015512-RA	Collagen alpha-5	<i>Bos taurus</i> (Animal)
ucom_00007898-RA	Extensin	<i>Drosophila erecta</i> (Animal)
ucom_00017011-RA	Extensin	<i>Octodon degus</i> (Animal)
ucom_00016833-RA	Extensin	<i>Cyprinodon tularosa</i> (Animal)
ucom_00014857-RA	Expansin	<i>Haliotis rubra</i> (Animal)
ucom_00004669-RA	Elastin isoform X10	<i>Drosophila subobscura</i> (Animal)
ucom_00000187-RA	Elastin isoform X10	<i>Drosophila subobscura</i> (Animal)
ucom_00001742-RA	Fibronectin	<i>Nostoc</i> sp. (Cyanobacteria)
ucom_00006108-RA	Fibronectin	<i>Chlorella variabilis</i> (Green microalga)
ucom_00010344-RA	Fibronectin	<i>Achlya hypogyna</i> (Oomycete)
ucom_00010351-RA	Fibronectin	<i>Rhodococcus spongiicola</i> (Bacteria)

Table S7. Protein-coding genes of calcium transport in *U. compressa*

Gene	Annotation	Best blast hit
ucom_00009416-RA	VDCC	<i>Chlamydomonas</i> sp. (Green microalga)
ucom_00009418-RA	VDCC	<i>Chlamydomonas</i> sp. (Green microalga)
ucom_00004154-RA	VDCC	<i>Chlamydomonas</i> sp. (Green microalga)
ucom_00016786-RA	Ryanodine-dependent channel	<i>Albugo laibachii</i> (Fungus)
ucom_00018869-RA	Ryanodine-dependent channel	<i>Astyanax fasciatus</i> (Animal)
ucom_00012480-RA	Ryanodine-dependent channel	<i>Albugo laibachii</i> (Fungus)
ucom_00002757-RA	IP3-dependent channel	<i>Zea mays</i> (Plant)
ucom_00007431-RA	IP3-dependent channel	<i>Gossypium barbadense</i> (Plant)
ucom_00005839-RA	Glutamate receptor	<i>Hevea brasiliensis</i> (Plant)
ucom_00007076-RA	Glutamate receptor	<i>Cajanus cajan</i> (Plant)
ucom_00007082-RA	Glutamate receptor	<i>Senna tora</i> (Plant)
ucom_00007074-RA	Glutamate receptor	<i>Chlorella desiccata</i> (Green microalga)
ucom_00000458-RA	Glutamate receptor	<i>Chloropicon primus</i> (Green microalga)
ucom_00002349-RA	Glutamate receptor	<i>Micractinium</i> sp. (Green microalga)
ucom_00007079-RA	Glutamate receptor	<i>Chlorella desiccata</i> (Green microalga)
ucom_00019116-RA	Glutamate receptor	<i>Micractinium</i> sp. (Green microalga)
ucom_00005273-RA	Glutamate receptor	<i>Melanotaenia boesemani</i> (Fish)
ucom_00007085-RA	Glutamate receptor	<i>Penaeus japonicus</i> (Animal)
ucom_00009503-RA	Glutamate receptor	<i>Epinephelus lanceolatus</i> (Fish)