











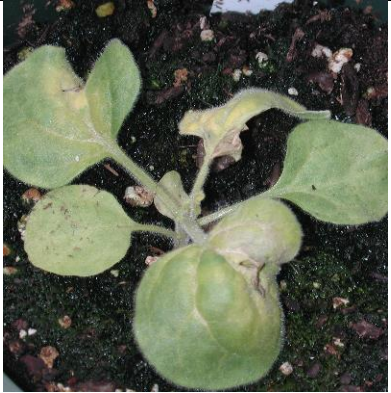








Screening data file 1. VIGS-mediated forward genetic screening and identification of candidate genes whose silencing provokes cell death in *Nicotiana benthamiana* plants.





Related clone ID(s)*	Gene description**	Representative phenotype description	Representative picture showing the phenotype
NbME03C02	Phosphatidic acid phosphatase (PAP2)	Severe leaf epinasty, rapid systemic necrosis and plant death	
NbME06B11, NbME06B12, NbME11F9, NbME22A10, NbME24A09, NbME39G05, NbME25D12	Heat shock protein 70	Severe leaf epinasty, rapid systemic necrosis and plant death	
NbME08A02	C-V-ATPase subunit G	Severe leaf epinasty, rapid systemic necrosis and plant death	
NbME16B04, NbME14E12	Probable vacuolar ATP synthase subunit d 1		
NbME08B08, NbME12D03, NbME13B02, NbME13B04, NbME14G05, NbME16F03, NbME18H12, NbME23E05, NbME28C08, NbME31H04, NbME33H10, NbME35A12, NbME35D04, NbME39F09	Putative vacuolar proton ATPase subunit E		



NbME03G07	D-elongation factor 2	Severe leaf and apical necrosis and rapid plant death	
NbME04E05	E-26S proteasome 19S subunit Rpn7	Severe leaf epinasty and rapid systemic necrosis	
NbME34C05	26S proteasome AAA-ATPase subunit RPT2a		
NbME19C05, NbME21D02	26S proteasome regulatory particle triple-A ATPase subunit2b		
NbME04F03	26S proteasome regulatory particle non-ATPase subunit7		
NbME16C04, NbME35D02	26S proteasome regulatory subunit 4 homolog		
NbME20G02, NbME29B05	26S protease regulatory subunit 6B		
NbME04C04	F-RNA helicase	Leaf epinasty, systemic necrosis and rapid plant death	

NbME23B07	Magnesium chelatase sub H	White & yellow leaves	
NbME23H01	Unknown fragment	Pale yellow mosaic, severe stunt growth and eventual plant death	
NbME18A01, NbME36H01	ADP-ribosylation factor	Leaf epinasty, stunt growth and apical necrosis	
NbME03G09, NbME25D12	Heat shock cognate 70 (hsc-2)	Distorted leaves and irregular cell death	
NbME06D04, NbME09E01, NbME09F02, NbME09F07, NbME22G08, NbME24H11, NbME27H05, NbME29D11	Polyubiquitin	Leaf epinasty, systemic necrosis and rapid plant death	
NbME17F8	20S proteasome alpha 6 subunit	Leaf epinasty, systemic necrosis and rapid plant death	
NbME02E12	20S proteasome beta subunit G1		
NbME14C05	20S proteasome subunit alpha-1		

NbME19H04	20S proteasome alpha subunit B		
NbME32D12	20S proteasome beta subunit C1		
NbME12A02, NbME40F11	Histone B2	Leaf epinasty, systemic necrosis and rapid plant death	
NbME10B02	Coatomeer delta subunit	Stunt growth, systemic necrosis and rapid plant death	
NbME29B01	Coatomeer protein complex, subunit beta 2		
NbME30E12	Putative alpha-coat protein		
NbME11A07	ATP synthase beta subunit	Leaf epinasty, systemic necrosis and rapid plant death	
NbME15E08	H+-transporting two-sector ATPase beta-1 chain		
NbME15D10	Mitochondrial ATPase beta subunit		
NbME24F02	F1-ATP synthase, beta subunit		

NbME04B05	Calmodulin	Leaf epinasty, systemic necrosis and rapid plant death	
NbME04C04	RNA helicase	Leaf epinasty, systemic necrosis and rapid plant death	
NbME22A12	DEAD/DEAH box helicase	Stunted growth and systemic necrosis and rapid plant death	
NbME11A06	Tryptophan synthase beta chain 2	Stunted growth and rapid plant death	
NbME12A09	Unknown	Leaf epinasty, systemic necrosis and rapid plant death	

NbME23H01	Unknown	Stunt growth and eventual plant death		
NbME21A10	Amino acid transporter	Stunt growth and systemic necrosis and eventual plant death		
NbME12B06	NeIF-4A14 mRNA	Stunt growth and eventual plant death		
NbME12F03	Ribosomal protein L2	Leaf epinasty, systemic necrosis and rapid plant death		

NbME18E11	Succinate dehydrogenase iron-protein subunit	Stunted growth, systemic necrosis and eventual plant death	
NbME23E09	Carbonate dehydratase (EC 4.2.1.1) precursor	Systemic necrosis and rapid plant death	

*all clones that showed similar phenotype are listed in the same cell

**for exact gene name of each clone refer to the database, this listing is indicative only. Grouping of the clones is broadly based on similarity in phenotype.