

A

>AtRD21 NP_564497 [*Arabidopsis thaliana*]

MGFLKPTMAILFLAMVAVSSAVDMSIISYDEKHGVSTTGGRRSEAEVMSIYEAWLVKHGKAQSQNSLVEK
 DRRFEIFKDNLRFVDEHNEKNLSYRLGLTRFADLTNDEYRSKYLGAKMEKKGERRTSLRYEARVGDDEL
 ESIDWRKKGAVA~~EVKDQGGCGSCWAFSTIGAVEGINQIVTGD~~LITLSEQELVDCDTSYNEGCNGLMDY
 AF~~EFIIKNGGIDTDKDYPYKGV~~DTCDQIRKNAKVVTIDSYEDVPTYSEESLKKAVAHQPISIAIEAGGRAF
 QLYDSGIFDGCQTLDHG~~VVA~~VG~~YGTENG~~KDYWIVRNSWGKSWGESGYLRMARNIASSGKCGIAIEP
 SYPIKNGENPPNPGSPSPPIKPPTQCDSYYTCPE~~SNTCCCLFEY~~GKYCFAWGCCPLEAATCCDDNYSCCP
 HEYPVCDLDQGTCLLSKN~~SPFS~~VKALKRKPATPFWSQGRKNIA

>NbALP DQ094022 [*Nicotiana benthamiana*]

MSRFSLLLALVVAGGLFAAALAGPATFADENPIRQIVSDGLHELENGILQVVGKTRHALLFARFAHRYGK
 RYETVVEIKQRFEVFLDNLMIRSHNKKGLSYKLGVNEFTDITWDEFRRDRLGAAQNC~~SATT~~KG~~NL~~KL~~TN~~
 VVL~~PET~~KDWREAGIVSPVKNQGGKCGSCWTFSTTGALEAAYGQAFGKGISLSEQQLVDCAGAFNFGCNG
 GLPSQAF~~EYIK~~SNGGLDTEEAYPYTGKMG~~LCKF~~SEN~~VGV~~KVIDSVNITLGAEDELKYAVALVRPVSIAFE
 VIKGFKQYKSGVYTSTECGNT~~PMDVN~~HAVLAVGYGVENGVPYWLKNSWGADWGDNGYFKMEMGKN
 MCGIATCASYPVVA

B

Band	Peptide sequence	Origin	Xcorr**	dCn
3	K.AVAHQPISIAIEAGGR.A	AtRD21	5.15	0.32
	K.CGIAIEPSYPIK.N	AtRD21	2.52	0.20
	K.DYWIVR.N	AtRD21	2.07	0.01
	K.KAVAHQPISIAIEAGGR.A	AtRD21	5.48	0.45
	K.NGGIDTDKDYPYK.G	AtRD21	4.17	0.37
	K.SWGESGYLR.M	AtRD21	2.69	0.20
	K.VVTIDSYEDVPT <u>YSEESL</u> K.K	AtRD21	5.10	0.50
	K.VVTIDSYEDVPT <u>YSEESL</u> KK.A	AtRD21	4.08	0.27
4	K.AVAHQPISIAIEAGGR.A	AtRD21	4.55	0.39
	K.CGIAIEPSYPIK.N	AtRD21	3.15	0.15
	K.GVDGTCDQIR.K	AtRD21	2.65	0.13
	K.KAVAHQPISIAIEAGGR.A	AtRD21	5.60	0.43
	K.NGGIDTDKDYPYK.G	AtRD21	4.08	0.15
	K.SWGESGYLR.M	AtRD21	2.85	0.09
	K.VVTIDSYEDVPT <u>YSEESL</u> K.K	AtRD21	5.52	0.50
	K.VVTIDSYEDVPT <u>YSEESL</u> KK.A	AtRD21	4.86	0.36
5	K.AVAHQPISIAIEAGGR.A	AtRD21	4.30	0.48
	K.CGIAIEPSYPIK.N	AtRD21	4.28	0.24
	K.DYWIVR.N	AtRD21	2.21	0.07
	K.KAVAHQPISIAIEAGGR.A	AtRD21	5.66	0.51
	K.NGGIDTDKDYPYK.G	AtRD21	3.92	0.38
	K.SWGESGYLR.M	AtRD21	2.83	0.26
	K.VVTIDSYEDVPT <u>YSEESL</u> K.K	AtRD21	5.37	0.46
	K.VVTIDSYEDVPT <u>YSEESL</u> KK.A	AtRD21	4.18	0.35
	K.NM*CGIATCASYPVVA	NbALP	3.51	0.42
	K.NMCGIATCASYPVVA	NbALP	3.03	0.40
	K.SNGGLDTEEAYPYTGK.N	NbALP	4.90	0.47
	K.YAVALVR.P	NbALP	2.73	0.16
K.YAVALVRPVSIAFEVIK.G	NbALP	5.09	0.36	

Figure S1 Identification of DCG-04 labeled proteases from agroinfiltrated *N. benthamiana*. DCG-04 labeled proteins were purified, digested with trypsin, and analyzed by mass spectrometry. **A**) Sequences of Arabidopsis RD21 and *N. benthamiana* ALP (Hao et al., 2006). The signal peptide and prodomain are indicated in light and dark grey, respectively. The identified tryptic peptides and catalytic residues are underlined and boldface, respectively. **B**) Summary of the identified tryptic peptides, with individual scores. *, oxidized methionine; **, X correlation value: >1.5 maybe; >2.5 good; >3.5 excellent; >4.5 no doubt. Only tryptic peptides are shown.