

NLP _{Pya}	60	AACRDMS-KA	QVYS	SGTYNG	YYAIMYSW	MPKDS	PSTGI	GHRHDW	ENVVW	LDNA--	AS
PsojNIP	60	AGCKGSGY	GTQI	YGRAVK	YQGVY	AFMYSW	MPKDE	TLTGL	GHRHDW	EACV	VWDDIA
PiNPP1.1	60	AGCKGSGY	GSQI	YGRVAT	YNGV	FAIMYS	SWYFPK	DELTL	GLGHR	RHDWE	HVVVW
PpNPP1	60	AGCKGSGY	GSQVY	GRVATY	NGVY	AIMYSW	YFPKDS	EVTL	GLGHR	RHDWE	HVVVW
HaNLP3	60	SGCRGSKY	GSQVY	GRSTW	YNDV	VWAIMY	AWYFPK	DSML	LLMGHR	RHDW	ENVV
PsnNLP9	60	SSCKGSGW	GSQVY	GRSTW	YSGR	WAIMYS	WYFPK	DSPT	GLGHR	RHDW	ENVV
PsnNLP37	60	AGCKGSGW	GSQVY	GRSTW	HRD	VWAIMY	SWYFPK	DSPT	GLGHR	RHDW	ENVV
PsnNLP54	60	SGYTGS	SSLGS	QIYGR	AVEY	EGVY	AFMYSW	MPKDE	TLTGL	GHRHD	WEACV
PsnNLP58	60	SKCKGSGW	GSQVY	GRSTW	YNGV	WAIMYS	WYFPK	DSPT	GLGHR	RHDW	ENVV
PsnNLP59	60	GGCRGSGH	GSQVY	GRSTW	INGV	WAIMYS	WYFPK	DAPS	SKMGHR	RHDW	ENVV
PsnNLP60	60	GGCRGSGH	GSQVY	GRAG	WFND	VWAIMY	SWYFPK	DSPT	SRMGHR	RHDW	ENVV
PvNLP2	60	GMCKGSGW	GSQVY	GRHAL	LFK	VWAIMY	SWYFPK	DMPST	DFGHR	RHDW	ENVV
PvNLP3	60	GMCKGSGW	GSQVY	GRHAF	SFRG	VWAIMY	VWYFPK	DMPSA	HFGHR	RHDW	ENVV
NLP _{Pya}	121	ANIVAL	SASA	HS	GYKKS	SFPAD	KSYLD	GITAKI	SYKST	WE	-LDHEL
PsojNIP	121	PKIVAL	SASA	HS	GYNKY	YFPSS	YFSG	NSAKI	DYSS	SYVV	INHAL
PiNPP1.1	121	PSVIAV	SAHS	SYNI	YHPP	ESNTI	DGYST	KVDY	SS	SLV	INHAL
PpNPP1	121	PSIIAV	SAHS	SYNI	YHPP	ESNTI	DGYSA	KVDY	SS	SLV	INHAL
HaNLP3	121	PTILGC	STSW	HS	GYIKY	AFCPT	SING	SSVM	IKY	HS	FE
PsnNLP9	121	PTILST	SAHS	GYSY	YVPS	SADSID	GTSV	KVNY	ESH	WE	-INHAL
PsnNLP37	121	EIILAV	TSAH	SGYS	KYSP	PNADT	LDGTS	IKVNY	ESNY	E	-MNHAT
PsnNLP54	121	PSIVAL	SAS	YHST	LYTY	PPDSY	LDGNS	AKIE	YSTS	W	VILDH
PsnNLP58	121	PKILAV	TSAH	SGYS	AQVP	PDADK	VDP	PSV	KVNY	ESK	WE
PsnNLP59	121	PKILGC	PSW	HN	GYNK	YAECP	ANVID	GTSV	KVKY	ESH	WE
PsnNLP60	121	PKILGI	SASA	HS	GYK	YSSFP	ENLD	GNSV	KVNY	EH	WE
PvNLP2	121	VKILAV	TSAH	SGYS	KQVP	PNFG	HLNGL	AAKIN	YESK	WE	-INHAL
PvNLP3	121	VKILAV	TSPF	H	GYSK	QVPP	DP	SHL	NGLAA	KFI	YES
NLP _{Pya}	182	EQMTQA	ARDA	LE	STDF	FGNAN	VPE	KS	-NF	QDKL	VKA
PsojNIP	182	DQLTDA	ARRA	LE	DTDF	FGDAN	VPE	KDAN	EQ	TKL	GN
PiNPP1.1	182	DQLTDA	AR	TALE	NTDF	FGDAN	VPE	KDGN	ELT	KVGN	AYYA
PpNPP1	182	DQLTDA	AR	TALE	NTDF	FGDAN	VPE	KDGN	ELT	KVGN	AYYA
HaNLP3	182	HQMPDL	ARRAL	N	DTDF	FGKAIT	EMND	LN	FMEK	IEA	AWPE
PsnNLP9	182	DQLS	DAAR	LALN	TTS	FGSAN	VPE	MND	GNELT	KL	GKAWPE
PsnNLP37	182	DQMSDL	ARRAL	N	VS	FGDAN	VPE	MND	GNELT	VGKL	DRAWPE
PsnNLP54	182	DQLTDA	AR	TALE	NTDF	FGSAN	VPE	KEAN	FAT	KVAK	AYYA
PsnNLP58	182	TQMTDA	ARQAL	N	TN	FGSAN	VPE	MNS	GNELG	KL	GKAWPE
PsnNLP59	182	NQMTDF	ARRAL	N	DTK	FGKANT	EMND	WNE	L	PKVE	KAWPE
PsnNLP60	182	EQMTED	ARRAL	N	AVH	FGKANT	EMND	GN	FRH	KL	ERAWPE
PvNLP2	182	EQLSSN	ARHALN	I	VH	WDANT	PFND	YV	F	MGK	LEKAFEL
PvNLP3	182	EQMSSN	ARHALN	I	V	PWA	ANT	PFND	YV	F	MGR

Supplemental Figure 6: Alignment of C-termini from cytotoxic NLPs and PvNLPs

Green color indicates positions in the sequence where at least PvNLP2 or PvNLP3 shares an identical amino acid with one of the NLPs above; yellow/orange color indicates positions in the sequence where at least PvNLP2 or PvNLP3 shares an amino acid with similar chemical properties. Blue color indicates amino acids described as crucial for necrosis induction in several publications (Oome and Van den Ackerveken, 2014; Ottmann et al., 2009). Red color indicates positions of amino acids which are completely different in PvNLP2 and PvNLP3 compared to the other NLPs in the alignment.