

Figure S3. Amino acid alignment of Lep-Caspase-3 sequences. Identical residues are boxed in grey. Critical amino acids involved in substrate-binding are boxed in purple. Critical amino acids involved in the active site, including the catalytic cysteine residue, are boxed in red. Blue frames indicate putative cleavage sites.

	10	20	30	40	50	60	70	80	90	100
Ac-Caspase-3	MAESD	VDAGSYERNVGNSSVNV	EIRTKPSF	SPSD	IYYDM	TGKKYLHIFNHYQYQKTRYFNRRP	STREGT	NKDVNRLTEV	FGNLG	
Bm-Caspase-3/a	ME	ETSNDFKIFNANPSNSSNKE	VMDNSEETQPTVSFD	PESVYYNMSGDKYLII	FNHYTFKKPKYSQYKQPSTRNGT	FEDVKS	LKDLFEGLS			
Bm-Caspase-3/b	ME	ETSNDFKIFNANPSNSSNKE	VMDNSEETQPTVSFD	PESVYYNMSGDKYLII	FNHYTFKKTKYFYQYKQPSTRNGT	FEDVKS	LKDLFEGLS			
Bm-Caspase-3/c	ME	ETSNDFKIFNANPSNSSNKE	VMDNSEETQPTVSFD	PESMYYNMSGDKYLII	FNHYTFKKTKYFYQYKQPSTRNGT	FEDVKS	LKDLFEGLS			
Es-Caspase-3	ME	ESRADATVTDKQETNSSFPL	VTRTRPSFNPD	LYYYGSGKKYLYIFNHYTFQTTKFFNDKQPSMRNGT	SIDAIRLPQV	FSELG				
Gm-Caspase-3	MDDSD	ASPFGLSPKAKTSDQSTEASPTENQASDRNVEVLIRKQFD	PNALYYDMSGKKYLII	FNQYKFQSTVYFRNKRPSRLGTFK	VDKLNKVF	KSQV				
Ha-Caspase-3	MENMDETSSDIKGFNLNPSNTSNPI	FVPEDE	G-LKFD	KDALYYNMSGEKYLII	NHHTFKKTRYFKNQQPSTRNGT	DNDVKS	LKTLFGNLG			
Hv-Caspase-3	MENMDETSSDIKGFNLNPSNTSNPI	FVPEDE	G-LKFD	KDALYYNMSGEKYLII	NHHTFKKTRYFKNQQPSTRNGT	DNDVKS	LKTLFGNLG			
Lm-Caspase-3										
Mb-Caspase-3	MENMEETSPDVKGFLNKPSTSNPQ	LVP-DE	G-LKFD	KDALYYDMSGEKYLII	NHHTFKKTIFFKNQQPSTRNGT	DNDVKS	LKLVFGNLG			
On-Caspase-3	MD	ETSDARTFQSATNLLPEKSN-LPPSASRSVPLPDSSIKFD	PDGLYYDMSGKKYLII	FNHSEYAEANEFYGGKPPDERDHLADYERLEKVF	SFFG					
Se-Caspase-3	MENTGESSADVKGFLNPSNTSNPL	LVP-DEVG	VKFD	PNALYYDMSGDKYLII	NHHTFKKTIYFQNKQPSTRNGT	DNDVKS	LKTLFGNLG			
Sl-Caspase-3	MENTDESSADIKGFNLNPSNTSNPL	LIP-DEVS	VKFD	PNALYYDMSGDKYLII	NHHTFKKTIYFQNKQPSTRNGT	DNDVKS	LKAIFGNLG			
	110	120	130	140	150	160	170	180	190	200
Ac-Caspase-3	F	KVIINYNDKEHGEI	IDTVTEISTRDHTET	SCLFFAF	THGDKRG	RLARWPT				
Bm-Caspase-3/a	Y	NVTITYDLIYEDILSRVAEFCKRDHSKTS	CVIVTTLTHGD	SGEVFAADQPYKISDLTNMIENAHHTLVGKPKIFFIQA	CRGPFMD	EGRTVVLDGE				
Bm-Caspase-3/b	Y	NVTITYDLIYEDILSRVAEFCKRDHSKTS	CVIVTTLTHGD	SGEVFAADQPYKISDLTNMIENAHHTLVGKPKIFFIQA	CRGPFMD	EGRTVVLDGE				
Bm-Caspase-3/c	Y	NVTITYDLIYEDILSRVAEFCKRDHSKTS	CVIVTTLTHGD	SGEVFAADQPYKISDLTNMIENAHHTLVGKPKIFFIQA	CRGPFMD	EGRTVVLDGE				
Es-Caspase-3	F	EVETLNDKTHRQLDKFQAIS	SKDHTETCYLFFAF	LSHGDNI	GNIYAADRPYQFKDVLTFLEHGLTLIAKPKVFFVQA	CRGGLTDVGRRIEMDSN				
Gm-Caspase-3	F	EVSTHTDLQYTNIKETVTAFIDRDHSNTSCICIT	FLTHGNNQGDLYAADRPFLQNLTKLFE	DKRLATIPKLPFFIQA	CRGDDIDDGNFVETDAL					
Ha-Caspase-3	F	EVIVFRDLEYEEI	IKNLKAIATKDHSRTSCMCVTILSHGDKGGEVHAADRPYLLTDVFTIFE	KQPLVKNPKLFFVQA	CRGASVDAGNTVALDG					
Hv-Caspase-3	F	EVIVFRDLEYEEI	IKNLKAIATKDHSRTSCMCVTILSHGDKGGEVHAADRPYLLTDVFTIFE	KQPLVKNPKLFFVQA	CRGASVDAGNTVALDG					
Lm-Caspase-3										
Mb-Caspase-3	F	KDQNIIVFRDLEYEGE	IKNLTAIATQDHSKTS	CVITLTHGDKGGEVHAADRPYLLTDVIAIFE	KQSLVKNPKLFFVQA	CRGSDMAGNTVSLDSQ				
On-Caspase-3	F	KPFYYENKTYDV	IKRTIKAKAEEDHSKTS	CLAVAIMTHGLQRGILCAYDTTYLAEMVWLLENGHS	SLVHKPKLFFIQA	CRGWKVDPGKMTDCDGP				
Se-Caspase-3	F	EVIVLKDLEYS	DIKNLTAIAKSDHSKTS	CVITLTHGDKGGEVHAADRPYLLTDIMAIFE	KQLSLVKNPKLFFVQA	CRGANMDAGNTVALDSQ				
Sl-Caspase-3	F	EVIVFRDLEYSDI	IKNLTAIAKSDHSKTS	CVITLTHGDKGGEVHAADRPYLLTDIMAIFE	KQLSLVKNPKLFFVQA	CRGANMDAGNTVALDSQ				
	210	220	230	240	250	260	270	280	290	300
Ac-Caspase-3										
Bm-Caspase-3/a	SRGVLRLP	THSDFLFLHSSVD				GYLSYRDSRGS	SWLIQTLCEIIRKNHKEIDLLHMITMVNKS	SIAYAKSTYTPK		
Bm-Caspase-3/b	SRGVLRLP	THSDFLFLHSSVD				GYLSYRDSRGS	SWLIQTLCEIIRKNHKEIDLLHMITMVNKS	SIAYAKSTYV		
Bm-Caspase-3/c	SRGVLRLP	THSDFLFLHSSVD	ELVTRVPVLSTISRLFAVFSFKKPKRRRG	LYSYRDSRGS	SWLIQTLCEIIRKNHKEIDLLHMITMVNKS	SIAYAKSTYTPK				
Es-Caspase-3	HRVS	YVVP	THADFFIMYSTVD			HKSYRNKYGS	FFIQDLCDIVEDYHEFYDLHLVTLVQN	RVAF	LPHHAPRY	
Gm-Caspase-3	SFKTYHIPS	SHIDFLTYPTVEG				LVAFRDREGS	WMIQELCKIETHYRDYDILQLITLANKA	VA	FERTSNNQK	
Ha-Caspase-3	EASFTVP	THADFLVLRSSVED				YLSYRDANGS	WMIQALCHVVQKHIEDLLHMITLVNRH	VAYERTTYTPS		
Hv-Caspase-3	EASFTVP	THADFLVLRSSVED				YLSYRDANGS	WMIQALCHVVQKHIEDLLHMITLVNRH	VAYERTTYTPS		
Lm-Caspase-3	YDSVLSIP	THADFLILHSTVK				AYRKYNGS	WMIQALCDIIGKHYEDLLHMITLMNKK	VTYER	VTPT	
Mb-Caspase-3	SDSVLTIP	THADFLVLCSTVED				YLSYRDMNGS	WMIQALCHIIHTITR	PDLLHMITFMT	VWCIRKSTYTP	
On-Caspase-3	NSTVLHVP	RHVDFFIGRSTV								
Se-Caspase-3	SDSVLTIP	THADFLVLCSTVED				HLSYRDMYGS	WMIQALCHVMEEHEDLLHMITLMNRK	VAYERSTYTPS		
Sl-Caspase-3	SDSVLTIP	THADFLVLCSTVED				HLSYRDMYGS	WMIQALCHVIKEQHEDLLHMITLMNRK	VAYERSTYTPS		
	310	320								
Ac-Caspase-3										
Bm-Caspase-3/a	CQETNNKKQM	TETRF	TLTKLF	MF	EK					
Bm-Caspase-3/b										
Bm-Caspase-3/c	CQETNNKKQM	SETRF	TLTKLF	MF	EK					
Es-Caspase-3	QNGPPQ	Q	EADARDQ	IHTN						
Gm-Caspase-3	NLSI	HEKKQTLET	KHTLTK	FLKFA						
Ha-Caspase-3	NRAMNNKKQ	MPETRF	TLTKLLK	F						
Hv-Caspase-3	NRAMNNKKQ	MPETRF	TLTKLLK	F						
Lm-Caspase-3	NEDTNNKQ	MIETK	FTLTKY	LKFQ						
Mb-Caspase-3	FYMQNNKKQ	MPETRF	TLTKL	WFDK						
On-Caspase-3										
Se-Caspase-3	NKAMNNKKQ	MPETRF	TLTKLLK	F						
Sl-Caspase-3	NRAMNNKKQ	MPETRF	TLTKLLK	F						