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Supporting information for article:

**Complex assembly, crystallization and preliminary X-ray  
crystallographic analysis of the bovine CD8 $\alpha$ –BoLA-2\*02201  
complex**

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		1	10	20	30	40	50	60								
bovine	CD8 $\alpha$	GSLSF	RMSPTQKETRL	GEKVELO	CELLQSG	GMATGCS	WLRHIPGD	DPRPTFLMYLSAQRVK								
human	CD8 $\alpha$	RPSQF	RVSPLDRTWNL	GETVELEK	CQVLLSN	PTSGC	WLFQPRGA	AASPTFLLYLSQNKPK								
murine	CD8 $\alpha$	QAPEL	RIFFPKMDAEL	GQKVDLVC	EVVLS	VSGC	WLFQNSSSKLPQPT	FVVYMASSHNK								
swine	CD8 $\alpha$	GSSLF	RISPEMVQASL	GETVVKLR	CEVMHNS	NILTISC	SWLYQKPGA	ASKPTFLMYLSKTRNK								
chicken	CD8 $\alpha$	NTMEAR	RFLNRNMKHPQ	EGQPLE	LECEMPFN	IDNGV	SWIRQDKDG	...KLHFIVYISPLSRT								
grass carp	CD8 $\alpha$	VLSLFL	YGVSAARIYKE	GEKVVQVD	CDLKKQS	...GTLT	EFERINSKG	...ADYLFVSKSADIK								
				CDR1 loop				CDR2 loop								
		70	80	90	100	110										
bovine	CD8 $\alpha$	L . . AEG	LDL . RHIS	SGAKV	VSGTK	QITL	LSSE	LQE . DO	CY	YFCS	VVSN	SILY	FS	NFVP	VFLP	A
human	CD8 $\alpha$	A . . AEG	LDL . QRF	SGKRL	LG . DT	FVLT	LSDE	RRRE . NE	CY	YFCS	ALSN	SIMY	FS	SHFVP	VFLP	A
murine	CD8 $\alpha$	I TWDEK	LNSS	SKLFS	SAMRD	TNNKY	VITL	NKFS	SKE . NE	CY	YFCS	VISN	SVMY	FS	SVVP	VLQKV
swine	CD8 $\alpha$	T . . AEG	LDL . RYI	SGYKAN	DNFY	IILHR	FREE	. DO	CY	YFCS	FLSN	SVLY	FS	NFMS	VFLP	A
chicken	CD8 $\alpha$	AFPRNERT	S . SQF	ECSKQG	SSFR	LVVKN	FRAQ	. DO	CT	YFC	IANIN	QMLY	FS	SSGQP	AFFP	A
grass carp	CD8 $\alpha$	E . . ND	LNS . EHY	TVNTNS	. GKV	QIDIK	S	KKKTDS	CY	YVCA	AMNS	NKLF	FS	GLTR	I	EGEP
				CDR3 loop												
		120	Identity													
bovine	CD8 $\alpha$	KPATT														
human	CD8 $\alpha$	KPTTT	55.37%													
murine	CD8 $\alpha$	SSADL	37.70%													
swine	CD8 $\alpha$	KPTKT	57.85%													
chicken	CD8 $\alpha$	TTTAA	27.50%													
grass carp	CD8 $\alpha$	DPTTI	20.69%													

**Figure S1** Amino-acids sequence alignment of the bovine CD8 $\alpha$  with other CD8 $\alpha$  molecules. The alignment was carried out using *ClustalW2*. White text on a red background indicates identical amino acids, while red text on a white background shows similar amino acids. The residues that in murine and human CD8 $\alpha$  interact with MHC I molecules were highlighted in green colour. The CDR loops were shown in black arrow. The GenBank accession numbers or PDB entries of the used sequences are as follows: bovine CD8 $\alpha$ , NM\_174015.1; human CD8 $\alpha$ , 1AJK; murine CD8 $\alpha$ , 1BQH; swine CD8 $\alpha$ , ABK30934; chicken CD8 $\alpha$ , AAS21625; grass carp CD8 $\alpha$ , ACU30711.