

SUPPLEMENTAL MATERIAL

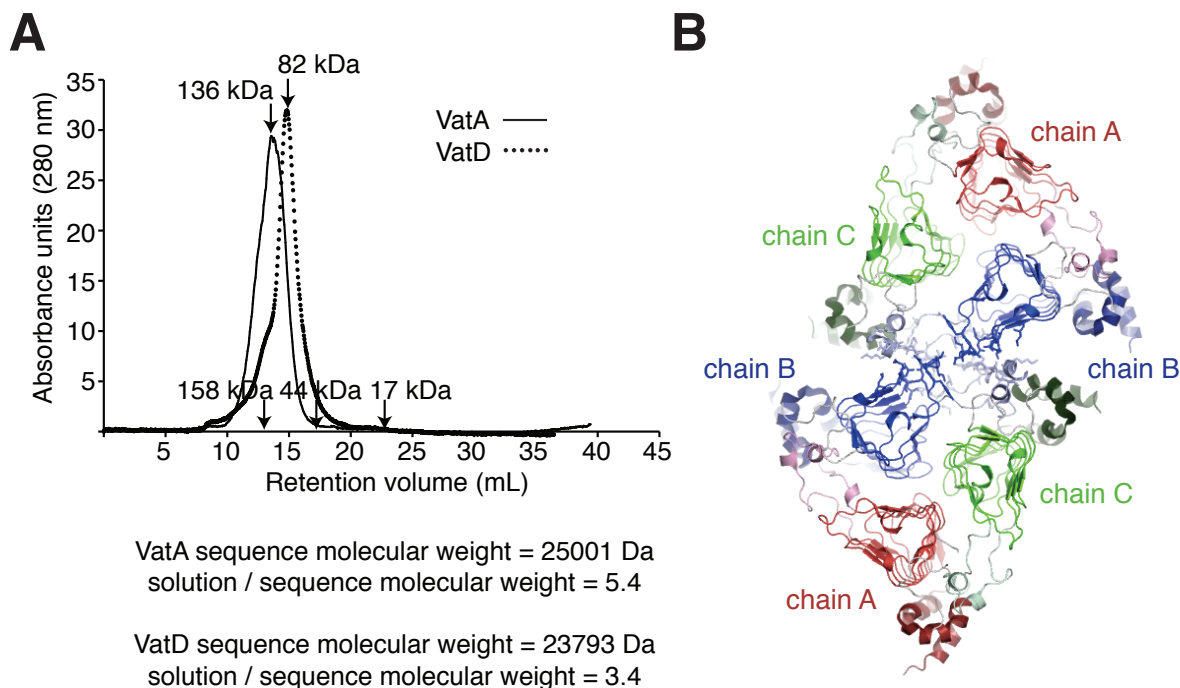


FIG S1: Oligomeric states of VatA and VatD. (A) Size exclusion chromatographic profile of VatA and VatD. Arrows refer to calibration standards and their molecular weights are indicated in kilodaltons. Calculation of apparent solution molecular weight is indicated below the profile. (B) Putative hexamer of VatA as observed in the VatA crystal structures. Shown are two trimers of VatA, colored as in Fig. 1. The putative hexameric interface occurs between chain B residues which are shown in sticks.

TABLE S1: Oligonucleotide primers for mutagenesis of *vat(A)*

	Forward primer	Reverse primer
N20A	aaagggGCtgcggaatcttcaattataaaacc*	ttccgaGCcccttttatcggtaaaatatttcgg
L23A	cggaatGCtcaattataaaacactataaacg	aattgaGCattccgattccctttatcgg
Y42F	gaatattctTttatgatagtaagcg	actatcataaAaagaatattccccc
D44A	tcttattatgCtagtaagcgaggagaatcc	tcgcttactaGcataataagaatattccc
Y57A	tcaagtcttaGCtattatgaagtgattgg	ttcataatgaGCtaagacttgatcttcaaagg
Y57H	tcaagtcttaCatcattatgaagtgattgg	tcataatgatGtaagacttgatcttcaaagg
Y59A	cttatatcatGCtgaagtgattgg	aatcacttcaGCatgatataagacttgatcttcaaagg
I62A	gaagtGCTggagataagttgattatagg	tcaccaGCcacttcataatgatataagacttgatcttcaaagg
S73A	aagattttgTgcaattggtcccgg	ggaccaattgCacaaaatcttctataatcaacttatctcc
S73C	agattttgtGCattggtcccgg	cgggaccaatGCacaaaatcttcc
H87A	tggtgcaaacGCtggatggatgg	atccatccgaGCgtttgaccattcataataaatgtttgccc
T93A	ggatcaGcatatccttttcatctattcagg	gatatgCtgatccatccatccgatggtttgacc
H97N	atatccttttAatctattcaggatggg	ctgaatagatTaaaaggatattgtgatcc
L98A	tttcatGCattcaggatgggtggg	ctgaatGCatgaaaaggatattgtgatcc
P108A	tatatgGCttccttaaaagatcttccc	aaggaaGCcatatacttctcccaaccttccc
L113A	aaagatGCtcccttgaaggggacattgaaattgg	aagggaGCatcttttaagggaaggcatatacttctccc

*capital letters refer to mutated codons.