Figure S1

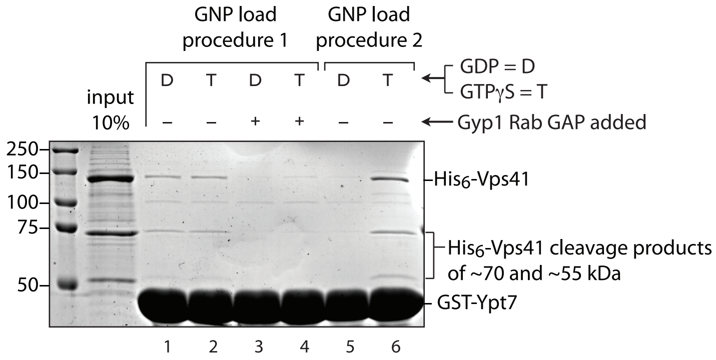
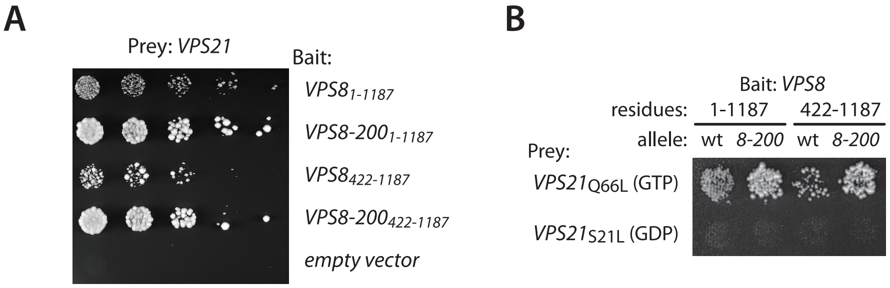


Figure S2



Supplementary Table 1. Informatic analyses: domain structures of of Vps-C/HOPS and Vps-C/CORVET subunits from *Saccharomyces cerevisiae* and *Homo sapiens*

Protein	Ref/Systemati	Length	FW	DomStart	DomEnd	Method	Fold/motif	Model	ModStart	ModEnd	RawSig	AdjSig
Vps3	YDR495C	1011	117	1	140	Ginzu/msa						
				141	238	Ginzu/cutpref						
				329	416	Ginzu/msa						
				417	636	Ginzu/cutpref						
				637	853	Ginzu/cutpref						
				854	996	Ginzu/cutpref						
Vps8	YAL002W	1274	145									
				122	161	SMART	WD40				2.30E-01	0.6
				181	224	SMART	WD40				8.70E+01	-1.9
				1198	1265	SMART	RING				1.60E-02	1.8
				125	161	pfam motif scan	WD40				8.40E-01	0.1
				484	664	pfam motif scan	Clathrin				5.70E-01	0.2
				1001	1023	pfam motif scan	Vps16_C				3.00E-01	0.5
				1197	1268	pfam motif scan	PHD				2.40E-01	0.6
				1231	1265	pfam motif scan	zf-C4HC4				6.20E-02	1.2
				508	665	Ybe et al.	Clathrin (1 of 2)					
				915	1092	Ybe et al.	Clathrin (2 of 2)					
				1	399	Manual/pdbblast	B-propellor	1NR0A Aip1p ortholog	151	529	3.11E+01	31.1
				1	421	Ginzu/pdbblast	B-propellor	1NR0A Aip1p ortholog	151	557	3.52E+01	35.2
				422	722	Manual/Ginzu/3djury	A-solenoid	1BK5a Srp1p karyopherin alpha	1	359	1.02E+00	1.0
				723	1187	Ginzu/pdbblast	A-solenoid	1B89a Clathrin proximal leg	25	443	2.45E+01	24.5
				1188	1274	Ginzu/ffas03		1V87a RING finger from mouse Deltex 2	5	95	2.45E+00	2.5
Vps11/Pep5p	YMR231W	1029	117.5									
				882	913	SMART	coiled-coil					
				927	973	SMART	PHD					
				928	972	SMART	RING					
				373	432	pfam motif scan					3.20E-03	2.5
				406	555	pfam motif scan	pre:CLATHRIN_REPEAT				2.50E-05	4.6
				928	972	pfam motif scan	prf:ZF_RING_2				1.10E-03	3.0
				943	975	pfam motif scan	pfam_fs:PHD				1.60E-06	5.8
				928	972	pfam motif scan	pfam_fs:zf-C3HC4				5.50E-04	3.3
				927	975	pfam motif scan	pfam_ls:PHD				2.10E-04	3.7
				928	972	pfam motif scan	pfam_ls:zf-C3HC4				4.10E-04	3.4
				460	583	Ybe et al.	Clathrin					
				364	505	Ginzu/pdbblast	A-bundle	1NA0a engineered TPR A-helix array	50	105	3.52E+00	3.5

				506	925	Ginzu/3Djury	A-solenoid	1EJLI Mouse importin alpha	8	391	2.07E+00	2.1
				1	350	Manual/pdbblast	B-propellor	1GG2b G-beta			3.94E+01	39.4
				926	C	Manual/pdbblast	RING C3HC4	1JM7b Brca1BARD1 RING			4.00E+00	4.0
				1	349	Manual	B-propellor					
				350	926	Manual	A-solenoid					
				926	1029	Manual	RING					
hVPS11	**Q9H270**	**941**	**107.8**									
				822	860	SMART	RING				6.00E-05	4.2
				822	860	pfam motif scan	zf-C3HC4				2.10E-03	2.7
				1	72	Ginzu/pdbblast		1P22a Beta-TrCP1 WD40 domain	143	159	4.24E+01	42.4
				73	337	Ginzu/pdbblast		1PI6a yeast AIp1p	55	304	1.42E+01	14.2
				338	715	Ginzu/pdbblast	A-solenoid	1B89a Clathrin proximal leg	133	449	3.11E+01	31.1
				716	941	Ginzu/pdbblast		1FBVa c-Cbl SH2-like and RING domains	235	378	5.00E+00	5.0
				716	861	Ginzu/pdbblast		1FBVa c-Cbl SH2-like and RING domains	235	378	5.00E+00	5.0
				862	941	Ginzu/3Djury		1SFFa Gamma-Aminobutyrate Aminotrans	313	381	1.02E+00	1.0
Vps16p	**YPL045W**	**798**	**92.7**									
				4	379	SMART	pfam:VPS16N				8.00E-216	215.1
				478	798	SMART	pfam:VPS16C				1.60E-193	192.8
				4	379	pfam motif scan	pfam_fs:Vps16_N				6.60E-218	217.2
				478	798	pfam motif scan	pfam_fs:Vps16_C				1.40E-193	192.9
				1	395	Ginzu/ffas03	B-propellor	1TYQc p40 of Arp2/3 complex	1	372	2.18E+00	2.2
				1	530	Ginzu/ffas03	B-propellor	1NR0A Aip1p ortholog	74	606	2.30E+00	2.3
				396	798	Ginzu/3Djury	A-solenoid/bundle	1N1Ba bornyl diphosphate synthase	62	489	2.06E+00	2.1
				531	798	Ginzu/3Djury	A-solenoid	1IB2a Pumilio-1 PUM repeat	26	296	2.06E+00	2.1
				1	285	Manual/3Djury	B-propellor	1G0Tb Transducin beta	25	331	4.91E+00	4.9
				1	308	Manual/ffas03	B-propellor	1ERJa Tup1 WD40 domain	36	392	4.95E+00	5.0
				285	798	Manual/3Djury	A-solenoid	1EE4a Srp1p karyopherin alpha			2.05E+00	2.0
				1	307	Manual	B-propellor					
				308	798	Manual	B-propellor					
hVPS16	**Q9H269**	**839**	**94.6**									
				4	420	SMART	pfam:Vps16_N				4.60E-270	270.0
				517	835	SMART	pfam:Vps16_N				2.10E-202	202.0
				4	420	pfam motif scan	pfam_fs:Vps16_N				3.50E-271	270.5
				517	835	pfam motif scan	pfam_fs:Vps16_C				1.60E-203	202.8

				1	568	Ginzu/ffas03	B-propellor/A-solenoid	1NR0A Aip1p ortholog	1	553	2.61E+00	2.6
				569	839	Ginzu/3Djury	A-solenoid	1OYZa E. coli YibA	5	280	1.55E+00	1.6
Vps18/Pep3p	**YLR148W**	918	107.4									
				214	380	SMART	pfam:Pep3_Vps18				2.30E-85	84.6
				585	741	SMART	CLH				1.60E-27	26.8
				826	894	SMART	RING				4.50E-01	0.3
				214	380	pfam motif scan	pfam_fs:Pep3_Vps18				2.00E-87	86.7
				585	741	pfam motif scan	pre:CLATHRIN_REPEAT				2.40E-02	1.6
				585	741	pfam motif scan					6.80E-29	28.2
				585	741	pfam motif scan	pfam_ls:Clathrin				7.20E-29	28.1
				770	785	pfam motif scan	pfam_fs:Merozoite_SPAM				7.30E-05	4.1
				585	741	Ybe et al.	Clathrin					
				1	337	Ginzu/pdbblast	B-propellor	1ERJa Tup1 WD40 domain	55	387	3.97E+01	39.7
				338	733	Ginzu/pdbblast	A-solenoid	1B89a Clathrin proximal leg	116	449	3.80E+01	38.0
				734	917	Ginzu/cutpref					na	
hVPS18	**Q9P253**	973	110.1									
				291	436	SMART	pfam:Pep3_Vps18				3.60E-75	74.4
				291	436	pfam motif scan	pfam:Pep3_Vps18				2.70E-76	75.6
				618	772	pfam motif scan	Clathrin				5.10E-03	2.3
				1	515	Ginzu/pdbblast	B-propellor	1BP0a Clathrin N-term and linker	3	471	9.40E+01	94.0
				516	743	Ginzu/pdbblast	A-solenoid	1B89a Clathrin proximal leg	268	449	4.21E+01	42.1
				744	973	Ginzu/msa					3.37E+00	3.4
Vps39/Vam6	**YDL077C**	886	1049									
				na	na	SMART	none recognized					
				642	670	pfam motif scan	pfam:fs:PPR				6.20E-03	2.2
				730	896	Ybe et al.	Clathrin					
				596	715	Manual; Ref 1	"domain I"				na	
				733	893	Manual; Ref 1	Clathrin				na	
				905	1021	Manual; Ref 1	"domain II"				na	
				1	434	Ginzu/3Djury	B-propellor	1NEXb Ubiquitin ligase	1	430	2.07E+00	2.1
				435	860	Manual/Ginzu/pdbbla	A-solenoid	1B89a Clathrin proximal leg	84	449	5.31E+01	53.1
				431	870	Manual/Ginzu/3Djury	A-solenoid	1QGKa Importin beta	50	470	2.55E+00	2.6
				547	860	Manual/Ginzu/pdbbla	A-solenoid	1B89a Clathrin proximal leg	207	449	2.40E+00	2.4

				861	979	Ginzu/3Djury		1A17 Prot Pi'ase 5 TTR repeats	38	154	1.01E+00	1.0
				861	979	Ginzu/3Djury		1SQBa bc1, M16_peptidase domain	55	178	1.65E+00	1.7
				980	1049	Ginzu/pdbblast	RING-like	1IYMa Ring-H2 finger of E15	434	503	4.00E+00	4.0
				980	1049	Ginzu/msa					1.11E+01	11.1
				1	444	Manual	B-propellor				na	
				445	893	Manual	A-solenoid				na	
				894	980	Manual	A-helical/unstructured				na	
				980	1049	Manual	RING-like				na	
				610	705	Searchwise (Ref2]	Clathrin Linker/alpha-CO	Clathrin Linker/alpha-COP			na	
hVam6	**Q96JC1**											
				10	300	SMART	CNH [citron]				1.34E-03	2.9
NOTE: hVps39 appears to be a												
srtuctural and functional homolog				15	294	pfam motif scan	pfam:lsCNH [citron]				1.50E-10	9.8
of yeast Vps3p, **not** Vps39p.				15	186	pfam motif scan	pfam:fsCNH [citron]				2.10E-04	3.7
				217	272	pfam motif scan	pre:ROM_MOTIF				1.00E-02	2.0
				281	306	pfam motif scan	pfam_fs:NHL				2.70E-03	2.6
				481	532	pfam motif scan	pfam_Fs:Clathrin				2.00E-04	3.7
				1	271	Ginzu:3Djury	B-propellor	1ERJa Tup1 WD40 domain	92	384	4.98E+00	5.0
				272	687	Ginzu/pdbblast	A-solenoid	1B89a Clathrin proximal leg	28	449	3.01E+01	30.1
				688	886	Ginzu:3Djury		1NAQa E. coli Cut1	12	119	2.06E+00	2.1
Vps41/Vam2	**YDR080W**	**992**	**113.4**									
				144	181	SMART	WD-40				2.30E-03	2.6
				184	225	SMART	WD-40				3.20E+01	-1.5
				753	901	SMART	CLH				2.90E-42	41.5
				753	901	Ybe et al.	Clathrin					
				146	181	pfam motif scan	pfam_fs:WD40				9.50E-08	7.0
				146	181	pfam motif scan	pfam_ls:WD40				4.80E-05	4.3
				753	901	pfam motif scan	pre:CLATHRIN_REPEAT				2.40E-19	18.6
				753	901	pfam motif scan	pfam_fs:Clathrin				2.30E-38	37.6
				753	901	pfam motif scan	pfam_ls:Clathrin				6.00E-39	38.2
				1	96	Ginzu/pdbblast	B-propellor	1ERJa Tup1 WD40 domain	63	115	4.37E+01	43.7
				97	468	Ginzu/pdbblast	B-propellor	1P22a Beta-TrCP1 WD40 domain	138	415	4.73E+01	47.3
				469	992	Ginzu/ffas03	A-solenoid	1B89a Clathrin proximal leg	1	416	2.06E+00	2.1
				1	501	Manual/Ginzu2	B-propellor				na	
				806	903	Searchwise (Ref2]	Clathrin Linker/alpha-CO	Clathrin Linker/alpha-COP			na	
hVPS41	**gi2506924**											
				571	712	SMART	CLH				1.90E-42	41.7

				791	838	SMART	RING				7.60E-02	1.1
				75	112	pfam motif scan	pfam_fs:WD40				3.90E-03	2.4
				571	712	pfam motif scan	pre:CLATHRIN_REPEAT				9.70E-22	21.0
				571	712	pfam motif scan	pfam_fs:Clathrin				1.90E-07	6.7
				571	712	pfam motif scan	pfam_ls:Clathrin				8.00E-07	6.1
				791	839	pfam motif scan	prf:ZF_RING_2				1.30E-02	1.9
				1	329	Ginzu/pdbblast	B-propellor	1P22a Beta-TrCP1 WD40 domain	142	415	4.97E+01	49.7
				330	408	Cutpref					na	
				409	788	Ginzu/pdbblast	A-solenoid	1B89a Clathrin proximal leg	39	411	4.32E+01	43.2
				789	854	Ginzu/msa					2.08E+00	2.1

Table S2 • Interactions among Vps-C subunits

				CORVET									HOPS																		Vps-C Core																			SM						
			Bait	Vps3					Vps8				Vps41				Vps39														Vps11									Vps18					Vps16					Vps33						
				Vps3 1-1011 wt	Vps3 130-998	Vps3 1-492	Vps3 424-1011	Vps3 902-1001	Vps8 1-1274 wt	Vps8 422-722	Vps8 723-1187	Vps8 422-1187	Vps41 1-992 wt	Vps41 1-97	Vps41 98-500	Vps41 501-992	Vps39 1-1049 wt	Vps39 1-420	Vps39 1-618	Vps39 1-674	Vps39 1-678	Vps39 1-860	Vps39 1-903	Vps39 1-979	Vps39 421-860	Vps39 421-979	Vps39 421-1049	Vps39 861-979	Vps39 861-1049	Vps39 980-1049	Vps11 1-1029 wt	Vps11 1-350	Vps11 1-475	Vps11 351-505	Vps11 351-926	Vps11 406-597	Vps11 506-926	Vps11 583-735	Vps11 736-926	Vps18 1-918 wt	Vps18 1-337	Vps18 1-380	Vps18 338-733	Vps18 734-918	Vps16 1-798 wt	Vps16 1-285	Vps16 1-379	Vps16 286-798	Vps16 479-798	Vps33 1-691 wt	Vps33 1-25	Vps33 1-177	Vps33 26-177	Vps33 26-691	Vps33 540-629	Vps33 596-629
Prey		Gene	AMY	759	760	761	762	812	531	527	528	529	553	550	551	552	508	502	561	503	619	507	509	510	504	505	506	499	500	501	534	535	683	536	539	682	537	685	686	549	545	546	547	548	544	540	541	542	543	556	763	677	678	681	679	680
CORVET	Vps3	Vps3 1-1011 wt	754	0	0	0	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0		0		0	0		3	0	0	0	2	0	2		2	0	0		0	0	0	0	0		0	0	0	0		0		
		Vps3 130-998	755	0	0	0	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0		0		1	0		2	0	0	0	1	0	0		1	0	0		0	0	0	0	0		0	0	0	0		0		
		Vps3 1-492	756	0	0	0	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0		0		0	0		1	0	0	0	0	0	0		0	0	0		0	0	0	0	0		0	0	0	0		0		
		Vps3 424-1011	757	0	0	0	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0		0		0	0		2	0	0	0	0	0	0		1	0	0		0	0	0	0	0		0	0	0	0		0		
		Vps3 902-1001	811	0	0	0	0	0	0		0	0	1		0	0	0		0	0	0	0	0	0		0		0	0		3	0	0	0	1	0	0		0	0	0		0	0	0	0	0		0	0	0	0		0		
	Vps8	Vps8 1-1274 wt	571	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
		Vps8 1-421	566	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0
		Vps8 422-722	567						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps8 422-1187	569	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps8 723-1187	568	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps8 1188-1274	570	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2.5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
HOPS	Vps41	Vps41 1-992 wt	593	0	0	0	0	0	0	0	0	0	0.5	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps41 1-97	590						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
		Vps41 98-500	591	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0.5	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps41 501-992	592						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
	Vps39	Vps39 1-1049 wt	490	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.5	0	0	0	2	0	0.5	0	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 1-420	484	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 1-618	601	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 1-674	485	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 1-678	631	0	0	0	0	0	0.5	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 1-860	489	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0
		Vps39 1-903	491						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
		Vps39 1-979	492	0	0	0	0	0	0	0	0	0	0.5	0	0	0.5	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	2.5	0	0	0	2	0	1	0	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 421-860	486	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 421-979	487	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 421-1049	488	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 861-979	481	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1.5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 861-1049	482	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0.5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 980-1049	483	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0
Vps-C Core	Vps11	Vps11 1-1029 wt	574	3	3	0	3	3	0.5	0	1.5	2.5	0.5	0	0	0	3	0	0	0	0	0	0	3	0	2	0	3	3	0	0.5	0	0	0	0.5	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps11 1-350	575						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
		Vps11 1-475	702	0	0	0	0.5	0	0		0	0	0		0	0	0		0	0	0	0	0	0		0		0	0		0	0	0	0	0	0	0		0	0	0		0	0	0	0	0		0	0	0	0		0		
		Vps11 351-505	576	0	0	0	0.5	0	0	0	0	0	0.5	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps11 351-926	579	2.5	2.5	0	3	3	0	0	0	0	0	0	0	0	2	0	0	0	0	0.5	0	3	0	0.5	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps11 406-597	701	0	0	0	0	1	0		0	0	0		0	0	0		0	0	1	0	0	0		0		1	0		0	0	0	0	0	0	0		0	0	0		0	0	0	0	0		0	0	0	0		0		
		Vps11 506-926	577	1.5	1.5	0	3	2	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0.5	0.5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps11 736-926	705	2	1.5	0	3	2.5	0		0	0	0		0	0	3		0	0	0	0	0	3		1		2	0		0	0	0	0	0	0	0		0	0	0		0	0	0	0	0		0	0	0	0		0		
		Vps11 927-1029	578	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0.5	0.5	0.5	0	0	0	0	0	0	0	0.5	0	0.5	0	0.5	0	0	0	0.5	0	0	0	0.5	0	0	0.5	0.5	0.5	0.5	0	0	0.5	0	0	0	0	0	1
	Vps18	Vps18 1-918 wt	589	0	0	0	0	0.5	0.5	0	0	0	0	0	0	0	0	0	1.5	0.5	1.5	0	0	0	0	0	0	0	0	0	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps18 1-337	585	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps18 1-380	586	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0
		Vps18 338-733	587	0	0	0	1	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	2.5	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps18 734-918	588	0	0	0	0.5	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Vps16	Vps16 1-798 wt	584	0	0	0	1.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps16 1-285	580						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
		Vps16 1-379	581						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
		Vps16 286-798	582						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
		Vps16 479-798	583	0	0	0	0.5	1	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0.5	0	0	0	0.5	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.5	0	0	0	0	0	0
SM	Vps33	Vps33 1-691 wt	596	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	1.5	0	0	0	0	0	0	0	0	0	0	0
		Vps33 1-177	696	0	0	0	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0		0		1	0		0	0	0	0	0	0	0		0	0	0		0	1	1	0	0		0	0	0	0		0		

Table S3A • Interactions of Vps-C subunits (preys) with Rab proteins (baits)

Rabs

			Bait	Ypt7																		Vps21						Other Rabs								
	Prey			Ypt7 wt LF	Ypt7 Q68L LF	Ypt7 T22N LF	Ypt7 D44N LF	Ypt7 D129N LF	Ypt7 N126I LF	Ypt7 I41S LF	Ypt7 T40A LF	Ypt7 wt	Ypt7 Q68L	Ypt7 T22N	Ypt7 D44N	Ypt7 D129N	Ypt7 N126I	Ypt7 I41S	Ypt7 T40A	Ypt7 K 140,147 R	Ypt7 K 5,6,48,56,140,147 R	Vps21 wt LF	Vps21 S21L LF	Vps21 Q66L LF	Vps21 wt	Vps21 S21L	Vps21 Q66L	Ypt1 wt	Sec4 wt	Ypt6 wt	Ypt10 wt	Ypt11 wt	Ypt31 wt	Ypt32 wt	Ypt52 wt	Ypt53 wt
		Gene	AMY	493	494	495	496	497	498	564	565	638	647	648	649	650	651	652	653	829	830	639	640	641	533	559	560	845	846	847	784	848	849	786	850	780
CORVET	Vps3	Vps3 1-1011 wt	754									0	0	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0	0	0	0	0
		Vps3 130-998	755									0	0	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0	0	0	0	0
		Vps3 1-492	756									0	0	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0	0	0	0	0
		Vps3 424-1011	757									0	0	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0	0	0	0	0
		Vps3 901-1001	811									0	0	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0	0	0	1	0
	Vps8	Vps8 1-1274 wt	571	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	2.5	0	0	0	0	0	0	0	0	0
		Vps8 1-421	566	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps8 422-722	567	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0									
		Vps8 422-1187	569	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0
		Vps8 723-1187	568	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps8 1188-1274	570	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0
HOPS	Vps41	Vps41 1-992 wt	593	0	0	0	0	2	0	0	0	0	0.5	0	0	3	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0
		Vps41 1-97	590	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0									
		Vps41 98-500	591	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps41 501-992	592	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0									
	Vps39	Vps39 1-1049 wt	490	0	1	0	0	2	2	2	2	0.5	0	0.5	2	3	3	3	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 1-420	484	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	1	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0
		Vps39 1-618	601	0	0	0	0	0	0	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 1-674	485	0	0	0	0	2	1	3	2	0	0	0	1.5	3	3	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0
		Vps39 1-678	631	0	0	0	0	2	2	3	2	0	0.5	0	2	3	3	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 1-860	489	2	2	2	3	3	3	3	3	2.5	2	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 1-903	491	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0									
		Vps39 1-979	492	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0
		Vps39 421-860	486	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 421-979	487	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 421-1049	488	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 861-979	481	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 861-1049	482	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps39 980-1049	483	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vps-C Core	Vps11	Vps11 1-1029 wt	574	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps11 1-350	575	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0									
		Vps11 1-475	702									0	0	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0	0	0	0	0
		Vps11 351-505	576	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps11 351-926	579	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps11 406-597	701									0	0	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0	0	0	0	0
		Vps11 506-926	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0.5	0
		Vps11 736-926	705									0	0	0	0	0	0	0	0	0	0				1	0	0	0	0	0	0	0	0	0	0.5	0
		Vps11 927-1029	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	0	0	0	0	0	1	0	0	0	0
	Vps18	Vps18 1-918 wt	589	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps18 1-337	585	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps18 1-380	586	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps18 338-733	587	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps18 734-918	588	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0
	Vps16	Vps16 1-798 wt	584	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps16 1-285	580	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0									
		Vps16 1-379	581	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0									
		Vps16 286-798	582	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0									
		Vps16 479-798	583	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0
SM	Vps33	Vps33 1-691 wt	596	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0
		Vps33 1-177	696									0	0	0	0	0	0	0	0	0	0				0	0	0	0.5	0	0	0	0	0	0	0	0.5

Table S3B • Interactions of Vps-C subunits (baits) with Rab proteins (preys)

				CORVET									HOPS																		Vps-C Core																			SM						
			Bait	Vps3					Vps8				Vps41				Vps39														Vps11									Vps18					Vps16					Vps33						
	Prey			Vps3 1-1011 wt	Vps3 130-998	Vps3 1-492	Vps3 424-1011	Vps3 901-1001	Vps8 1-1274 wt	Vps8 422-722	Vps8 723-1187	Vps8 422-1187	Vps41 1-992 wt	Vps41 1-97	Vps41 98-500	Vps41 501-992	Vps39 1-1049 wt	Vps39 1-420	Vps39 1-618	Vps39 1-674	Vps39 1-678	Vps39 1-860	Vps39 1-903	Vps39 1-979	Vps39 421-860	Vps39 421-979	Vps39 421-1049	Vps39 861-979	Vps39 861-1049	Vps39 980-1049	Vps11 1-1029 wt	Vps11 1-350	Vps11 1-475	Vps11 351-505	Vps11 351-926	Vps11 406-597	Vps11 506-926	Vps11 583-735	Vps11 736-926	Vps18 1-918 wt	Vps18 1-337	Vps18 1-380	Vps18 338-733	Vps18 734-918	Vps16 1-798 wt	Vps16 1-285	Vps16 1-379	Vps16 286-798	Vps16 479-798	Vps33 1-691 wt	Vps33 1-25	Vps33 1-177	Vps33 26-177	Vps33 26-691	Vps33 540-629	Vps33 596-629
		Gene	AMY	759	760	761	762	812	531	527	528	529	553	550	551	552	508	502	561	503	619	507	509	510	504	505	506	499	500	501	534	535	683	536	539	682	537	685	686	549	545	546	547	548	544	540	541	542	543	556	763	677	678	681	679	680
Rabs	Ypt7	Ypt7 wt LF	475						0	0	0	0	0	0	1	0	0	0	0	2	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
		Ypt7 Q68L LF	476						0	0	0	0	0	0	0	0	0	0	0	3	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
		Ypt7 T22N LF	477						0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
		Ypt7 D44N LF	478						0	0	0	0	0	0	0	0	1	0	0	3	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
		Ypt7 D129N LF	479						0	0	0	0	0	0	0	0	1	0	0	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
		Ypt7 N126I LF	480						0	0	0	0	0	0	0	0	0	0	0	2	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	1	0	0
		Ypt7 I41S LF	604						0	0	0	0	0	0	0	0	2	0	0	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
		Ypt7 T40A LF	605						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
		Ypt7 wt	634	0	0	0	0	0	0	0	0	0	1	0	3	0	0.5	0	1.5	2	2.5	2	1.5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.5	0	1.5	0	0	0	0
		Ypt7 Q68L	654	0	0	0	0	0	0		0	0	0	0	0	0	2		0	2.5	2.5	2	3	0		0		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Ypt7 T22N	655	0	0	0	0	0	0		0	0	0	0	0	0	0		0	0.5	0	0	1	0		0		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0
		Ypt7 D44N	656	0	0	0	0	0	0		0	0	0	0	0	0.5	0		0.5	1	2	0	2	0		0		0	0		0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1.5	0	0.5	0	0
		Ypt7 D129N	657	0	0	0	0	0	0		0	0	0	0	0	0.5	2		0	3	3	3	3	1		0		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Ypt7 N126I	658	0	0	0	0	0	0		0	0	0	0	0.5	0	1		0	0.5	1	2	2	0		0		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0
		Ypt7 I41S	659	0	0	0	0	0	0		0	0	0	0	0	0	2		0	3	3	3	3	0		0		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Vps21	Vps21 wt LF	635						1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
		Vps21 S21L LF	636						0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
		Vps21 Q66L LF	637						0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
		Vps21 wt	573	0	0	2	0	0	1.5	0	0	2	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	2.5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps21 S21L	599	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Vps21 Q66L	600	0	0	1.5	0	0	2.5	0	0	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other	Ypt1 wt	884	0	0	0	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0		0		0	0		0	0	0	0	0	0	0		0	0	0		0	0	0	0	0		0	0	0	0		0		
		Sec4 wt	861	0	0	0	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0		0		0	0		0	0	0	0	0	0	0		0	0	0		0	0	0	2	1		1	0	0	0		0		
		Ypt6 wt	862	0	0	0	0	0	0		0	0	0		0	0	0		0	0	1	1	1	0		0		0	0		0	0	0	0	0	0	0		0	0	0		0	0	0	0	0		0	1	0	2		0		
		Ypt10 wt	863	0	0	0	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0		0		0	0		0	0	0	0	0	0	0		0	0	0		0	0	0	0	0		0	0	0	0		0		
		Ypt11 wt	864	0	0	0	0	0	0		0	0	0		0	0	0		0	0	1	0	0	0		0		0	0		0	0	0	0	0	0	0		0	0	0		0	0	0	0	0		0	0	0	0		0		
		Ypt31 wt	865	0	0	0	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0		0		0	0		0	0	0	0	0	0	0		0	0	0		0	0	0	0	0		0	0	0	0		0		
		Ypt32 wt	866	0	0	0	0	0	0		0	0	0		0	0	1		0	1	2	2	2	0		0		0	0		0	0	0	0	0	0	0		0	0	0		0	0	0	0	0		0	0	0	0		0		
		Ypt52 wt	778	0	0	0	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0		0		0	0		0	0	0	0	0	0	0		0	0	0		0	0	0	0	0		0	0	0	0		0		
		Ypt53 wt	868	0	0	0	0	0	0		0	0	0		0	0	0		0	0	0	0	0	0		0		0	0		0	0	0	0	0	0	0		0	0	0		0	0	0	0	0		0	0	0	0		0		

Table S4. Phenotypes resulting from HOPS/CORVET truncations

A. CPY and ALP maturation

Genotype	**CPY**	**ALP**
Wild-type	Mature	Mature
pep4Δ prb1Δ	Pro [p2]	Pro-
vps11$^{736\Delta}$	Pro [p2]	Pro-
vps11$^{926\Delta}$ (ΔRING)	Mature	Pro-
vps18$^{826\Delta}$ (ΔRING)	Pro [p2]	Pro-
vps8$^{1188\Delta}$ (ΔRING)	Mature & Pro [p2]	Mature
vps3$^{900\Delta}$	Pro [p2]	Mature & Pro-
vps39$^{860\Delta}$	Mature & Pro [p2]	Pro-
vps39$^{979\Delta}$ (ΔRING)	Mature & Pro [p2]	Mature & Pro-

B. CPY missorting

Genotype	**CPY-invertase secretion**
Wild-type	None
pep4Δ prb1Δ	None
vps3Δ	Strong
vps3$^{900\Delta}$	Strong
vps11Δ	Strong
vps11$^{1\text{-}735\Delta}$	Strong
vps11$^{926\Delta}$ (ΔRING)	Weak

C. Complementation of vps11$^{735\Delta}$ ***sorting defects by vps11***$^{736\text{-}1029}$

Genotype	**CPY**	**ALP**	**GFP-CPS**
Wild-type	Mature	Mature	Vacuole lumen
vps11Δ	Pro [p2]	Pro-form	N/A
vps11$^{735\Delta}$	Pro [p2]	Pro-form	N/A
vps11$^{736\text{-}1029}$	Pro [p2]	Pro-form	N/A
vps11$^{735\Delta}$ + *vps11*$^{736\text{-}1029}$	Mature	Mature	Vacuole lumen

Table S5 Strains used in this study

Strain	Genotype	Source
PJ694a	*MATa trp1-901, leu2-3,112, ura3-52, his3-200 gal4Δ, gal80Δ, LYS2::GAL1-HIS3, GAL2-ADE2, met2::GAL7, -lacZ*	James *et al.*, 1996
PJ694*α*	*MATα trp1-901, leu2-3,112, ura3-52, his3-200 gal4Δ, gal80Δ, LYS2::GAL1-HIS3, GAL2-ADE2, met2::GAL7, -lacZ*	James *et al.*, 1996
BY4742	*MATα his3Δ1 leu2Δ0 lys2Δ0 ura3Δ0*	ATCC
AMY942	BY4742; *vps39Δ::KanMX4*	This study
AMY885	BY4742; *vps39-860Δ::URA3*	This study
AMY886	BY4742; *vps39-979Δ::URA3*	This study
AMY1106	BY4742; *vps11Δ::KanMX4*	This study
AMY1107	BY4742; *vps11-350Δ::KanMX4*	This study
AMY1108	BY4742; *vps11-445Δ::KanMX4*	This study
AMY1109	BY4742; *vps11-505Δ::KanMX4*	This study
AMY1199	BY4742; *vps11-735Δ::KanMX4*	This study
AMY1198	BY4742; *vps11-926Δ::KanMX4*	This study
BJ8987	*MATα vps8-200 ura3-52 trp1 leu2Δ1 his3Δ200*	Jones *et al.*, 1998
BJ4490	*MATa pep5 (vps11Δ445)::TRP1 vps8-200 leu2Δ1 trp1Δ101*	Jones *et al.*, 1998
BJ6919	*MATa pep5 (vpsΔ445)::TRP1 leu2Δ1 trp1 ade6*	Jones *et al.*, 1998
BJ8866	*MATa leu2Δ1 ura3-52 trp1*	Jones *et al.*, 1998
AMY1113	*MATα vps8-200 ura3-52 trp1 leu2Δ1 his3Δ200 vps11-445Δ::KanMX4*	This study
SEY6210	*MATα leu2-3,112 ura3-52 his3-Δ200 trp1-Δ901 lys2-801 suc2-Δ9*	Robinson *et al.*, 1988
BHY10	*MATα leu2-3,112 ura3-52 his3-Δ200 trp1-Δ901 lys2-801 suc2-Δ9 CPY-invertase::LEU2*	Horazdovsky *et al.*, 1994
DNY356	*MATα leu2-3,112 ura3-52 his3-Δ200 trp1-Δ901 lys2-801 suc2-Δ9 CPY-invertase::LEU2 vps11Δ::KanMX4*	This study
DNY357	*MATα leu2-3,112 ura3-52 his3-Δ200 trp1-Δ901 lys2-801 suc2-Δ9 CPY-invertase::LEU2 vps11-926Δ::KanMX4*	This study
DNY358	*MATα leu2-3,112 ura3-52 his3-Δ200 trp1-Δ901 lys2-801 suc2-Δ9 CPY-invertase::LEU2 vps11-735Δ::KanMX4*	This study