

Abhinav R. Jain and Anne S. Robinson

SP	P0DMS8	AA3R_HUMAN	MPNNSTALSTSLANVTYITMEIFIGLCAIVGNVLVICVKNLPNSLQTTTFYFIVLSLADIA	60
SP	P29274	AA2AR_HUMAN	-----MPIMGSSVYITVELAIAVLAILGNVLVCWAVWLNSNLQNVTN YFVVSLAAADIA	54
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SP	P0DMS8	AA3R_HUMAN	VGVLVMLPAAIVVSLGITIHFYSCLFMTCLLLIFTHASIMSLLAIAVDRLRVKLTVMRYKR	120
SP	P29274	AA2AR_HUMAN	VGVLAIPFAITISTGTGCAACHGC LFIACFVLVLTQSSIFSLLAI AIDRYIAIRIPLRYNG	114
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SP	P0DMS8	AA3R_HUMAN	VTTHRRRIWLAGLCWLVSFLVGLTPMGFWNMKLTSSEYHR-----NVTFLLSCQFVSVMRM	174
SP	P29274	AA2AR_HUMAN	LVTGTRAKGI I AICWVLSFAIGLTPMLGWNNCGQPKEGKNHSGQCCEGQVACLFEDEVPM	174
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SP	P0DMS8	AA3R_HUMAN	DYMVFYSFLTWFIFPLVVMCAIYLDIFYIIRNKLSLNLSN---SKETGAIFYGREFKTAKS	231
SP	P29274	AA2AR_HUMAN	NYMVFYNFFACVLVPLLLMLGVYLRIFLAARRQLKOMESQPLPERARSTLOKEVHAACS	234
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SP	P0DMS8	AA3R_HUMAN	LFLVLFLFALSWSLPLSIINCIIFYNGE--VPOLVLYMGILLSHANSMMNPPIVYAYKIKK	288
SP	P29274	AA2AR_HUMAN	LAIIVGLFALCWLP LHIINCFTFF CPDCSHAPLWLMYLAIVLSHTNSVVPNPFIIYAYRIRE	294
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SP	P0DMS8	AA3R_HUMAN	FKETYLLILKACVVCHPSDSL-----DTSIEKNSE-----	318
SP	P29274	AA2AR_HUMAN	FRO TFRKI IRSHVLQQEQEPFKAAGTSARVLAAHGS DGE QVSLRLNGHPGPVWANGSAPH	354
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SP	P0DMS8	AA3R_HUMAN	-----	
SP	P29274	AA2AR_HUMAN	ERRPNGYALGLVSGGSAQESQGNTGLPDVE L LSHELKGVCPEPPGLDDPLAQDGAGVS	412

Figure S1 (A) Pairwise sequence alignment of A_{2A}R (P29274) and A₃R(P0DMS8) generated using the UNIPROT alignment tool. Transmembrane helices in A_{2A}R and putative transmembrane helices in A₃R are underlined, and the amino acids in bold. Identical amino acids denoted by *; conservative changes by period or colon. The palmitoylation site in A₃R (Cys 303) is double underlined, and colored red. The two D/E-X-D/E motifs in A_{2A}R (located at residues 330 and 382) are boxed and highlighted in yellow.

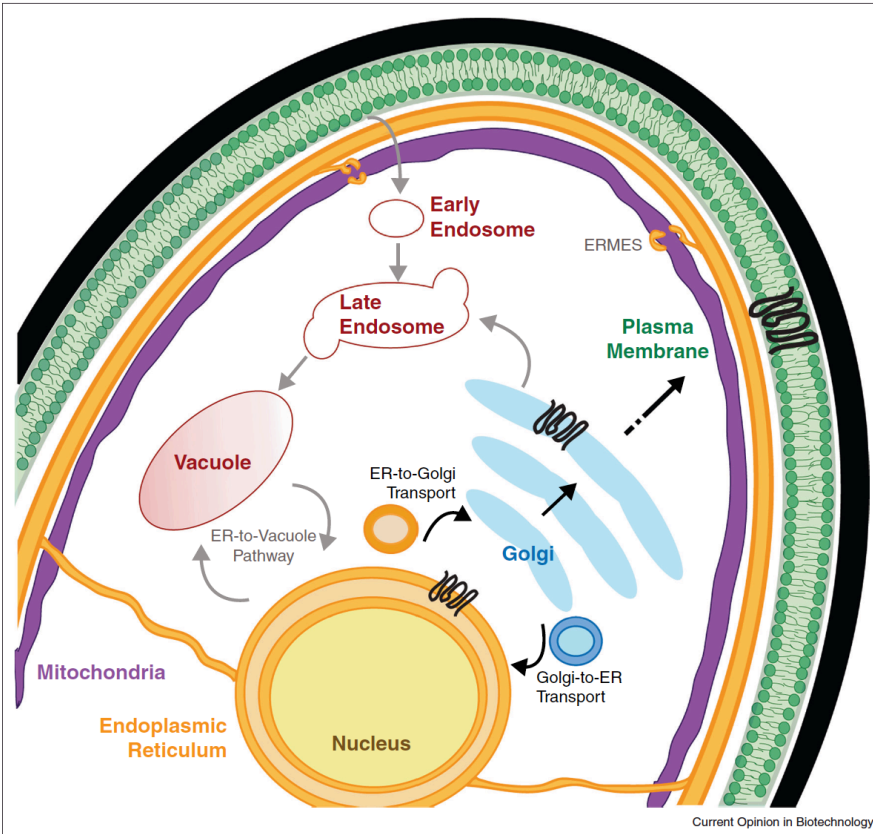


Figure S2 Protein trafficking in yeast. Endoplasmic reticulum (ER) to Golgi to plasma membrane trafficking is shown for membrane proteins. Reprinted with permission from Young and Robinson [1].

1. Young, C. L.; Robinson, A. S., Protein folding and secretion: mechanistic insights advancing recombinant protein production in *S. cerevisiae*. *Curr Opin Biotechnol* **2014**, 30, 168-77.