**ARE AMINO ACIDS IN THE CYTOPLASMIC LOOP 1 OF AMPA RECEPTORS NECESSARY FOR STARGAZIN-MEDIATED TRAFFICKING?**

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Stargazin is an accessory protein of AMPA (α-amino-3-hydroxy-5-methyl-isoxazole-4-propionate) receptors that enhances the surface expression of AMPA receptors and also affects the biophysical properties of the receptor. The domains of the AMPA receptor necessary for either of these two processes have not yet been identified. To study the interactions of both of these proteins, I used confocal imaging and electrophysiology of heterologously expressed, fluorophore-tagged GluR1 and stargazin to study surface expression and desensitization kinetics. Neutralizing the side chain of negative charged residues of the cytoplasmic tail of GluR1 did not inhibit stargazin-mediated trafficking of the receptor. When I negated the charge and changed the amino acids of specific residues of the cytoplasmic loop of the AMPA receptor there was still continued trafficking by stargazin and infact, trafficking may have been enhanced. These data suggest that ionic interactions between stargazin and AMPA receptors at the cytoplasmic loop 1 (CL1) are not essential for trafficking and this supports the idea that hydrophobic interactions between CL1 and stargazin may be involved in trafficking.