
INVESTIGATING THE ROLE OF DNC-2 AND DLI-1 ON AMPA RECEPTOR MEDIATED BEHAVIORS IN C. ELEGANS

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γ -amino-3-hydroxy-5methylisoxazole-4-propionic acid (AMPA) receptors (AMPARs) are protein complexes involved in excitatory neurotransmission. AMPARs are tetrameric structures consisting of the pairings of GluA1, GluA2, GluA3, and GluA4 subunits. Dctn2 and Dync1li1 were found to interact with GluA2 in an immunoprecipitation screen that was performed on postnatal day 14 rat brains. DNC-2 and DLI-1 were identified as the *C. elegans* homologs of Dctn2 and Dync1li1, respectively, and are components of motor proteins that transport cargo throughout the cell. The goal of this project was to determine whether knocking down DNC-2 and DLI-1 by RNAi affects AMPA Receptor-mediated behaviors, including mechanosensation and chemosensation, in *C. elegans*.