

**SUPPLEMENTARY MATERIAL**

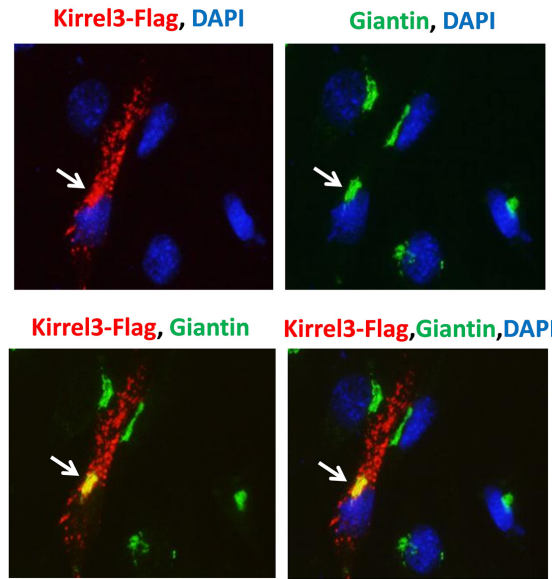
**corresponding to:**

**Adhesion molecule Kirrel3/Neph2 is required  
for the elongated shape of myocytes  
during skeletal muscle differentiation**

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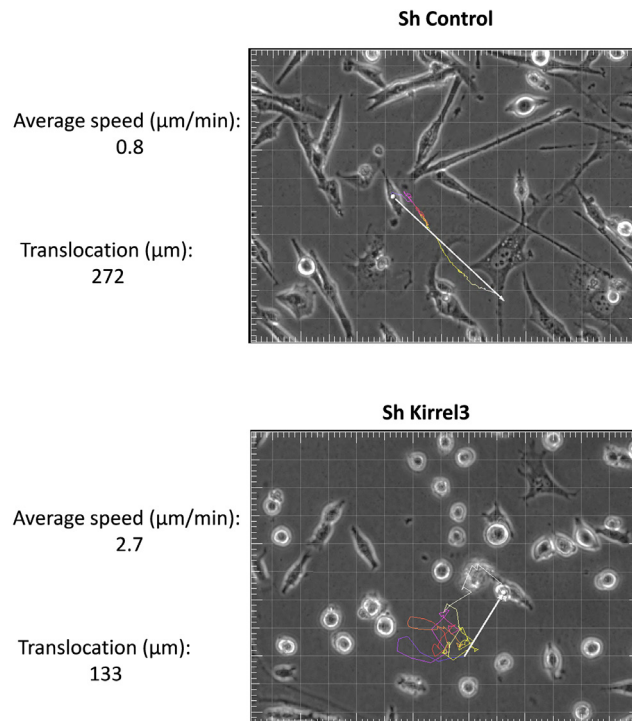
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**Supplementary Fig. 1. Kirrel3 co-stained with Golgi protein, Giantin.** C2 myoblasts were transfected with a vector encoding the full length Kirrel3 that contains a Flag tag at the C-terminal intracellular region. Myoblasts were grown in DM for 8 hours and immunostained with antibodies to Flag and Giantin.

**Supplementary Fig. 2 (Video). Defected elongation of Kirrel3-depleted MPCs.** Time lapse video of primary MPCs that are grown in DM for 24 hours. Film shows the first 5 hours in DM.

**Supplementary Fig. 3 (Video). Directed movement of spindle shape control myocyte and randomized movement of Kirrel3-KD rounded myocyte.** Time lapse videos of two cultures of MPCs infected with control shRNA and Kirrel3 shRNA. MPCs were grown in DM for 10 hours. Filming commenced immediately after culture was transferred to DM and continued for 10 hours. Analysis of cell movement was performed with IMARIS software (Bitplane).



**Supplementary Fig. 4: Quantification of the average speed and translocation of MPCs filmed in Supplementary Fig. 3.** The analysis was performed with the Imaris software (Bitplane com.)