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OA Open Access paper

Cover
Differential expression of the Rbfox splicing regulatory proteins regulates cerebellar development and function. Shown here is an immunofluorescence analysis of wild-type mouse cerebellum using antibodies directed against Rbfox1 (green), which is expressed in granule cell neurons, and Rbfox2 (dark blue), which is expressed in interneurons. Purkinje cells express both proteins (light blue). One Purkinje cell has been filled with the neuorotrace biocytin (reddish orange) to visualize its axon and dendritic arbor. Rbfox1+/-/Rbfox2-/- mutant mice exhibit defects in cerebellar development with ectopic Purkinje cells and severely malformed neural processes. Loss of Rbfox1 and Rbfox2 in mature Purkinje cells leads to defects in sodium channel splicing and irregular firing patterns. (For details, see Gehman et al., p. 445.)