



Creative Bioarray

RNA FISH ASSAY TO DETECT microRNA

microRNA FISH Assay

The single-molecule gene expression can be visualized directly in intact tissues with single-cell resolution using RNA Fluorescence *in situ* hybridization (RNA FISH). The assay represents a major advancement with its proprietary probe design to amplify target-specific signals but not background noise from non-specific hybridization. Detecting small RNAs requires a robust, highly specific, and highly sensitive assay with minimal time, ease of effort, and ease of data interpretation. **Creative Bioarray's scientists are experienced using miRNA FISH for compound screening and other research experiments.**

This article, published in 2020, illustrated the applications of miRNA FISH Technology in their research.

Molecular Therapy
Nucleic Acids
Original Article



MicroRNA134 of Ventral Hippocampus Is Involved in Cocaine Extinction-Induced Anxiety-like and Depression-like Behaviors in Mice

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An exclusive target **RNA ISH** probe with proprietary sequences was designed to target mouse miRNA134.

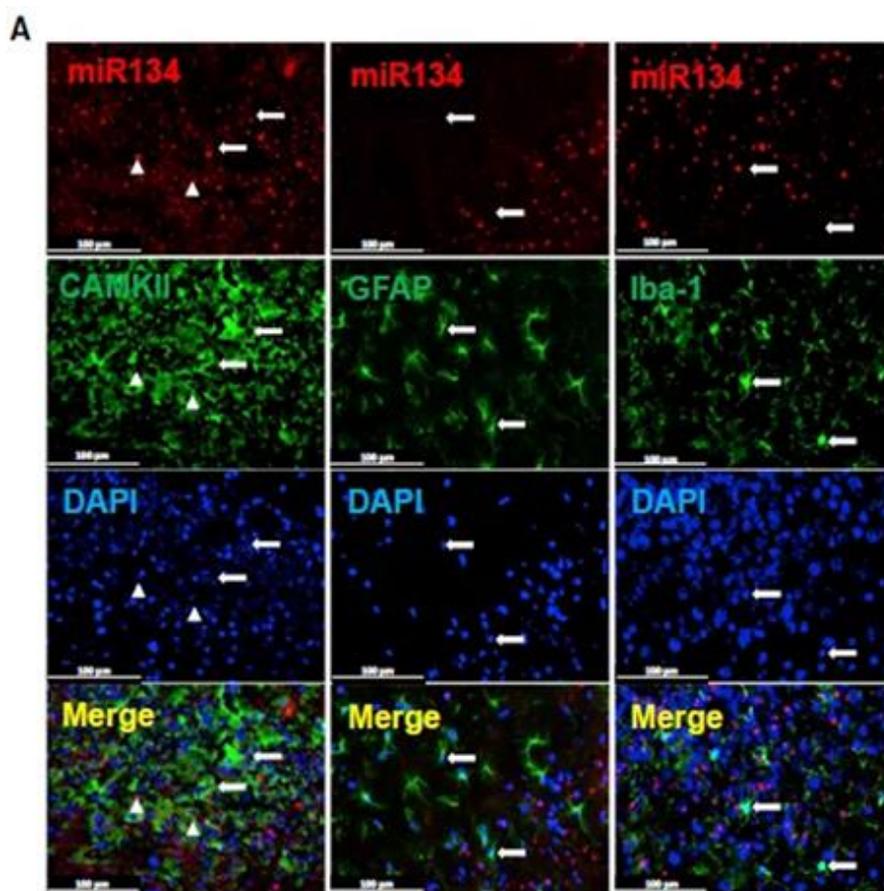


Figure 1. Illustration of miR134-expressed cell types in the vHP of native mice (left). White arrows indicate positive staining of biomarkers for cell types (green indicates CAMKII, GFAP, and Iba-1); white triangles indicate colocalization with miR134 (red) and biomarkers (green). Scale bars, 100 μm. Ratio of colocalization with miR134 and biomarkers to miR-134-positive cells.

To assess the cell types in the vHP that miR134 is mainly expressed, the miRNA FISH method combined with immunostaining of specific cell markers was used in naive mice. As shown in Figure 1, miR134 mostly colabeled with CAMKII, a marker of pyramidal neurons, but not with GFAP (glial fibrillary acidic protein, a marker of astrocyte) and Iba-1 (a marker of microglia) in the vHP, indicating that miR134 is mainly located in neurons of the vHP.

Creative Bioarray offers custom RNA FISH services for Your scientific research!

With many years of experience specializing in RNA FISH, we have supported thousands of projects in the United States and globally. Each project is individually tailored and managed by our team of scientists, specialists, board certified pathologists, and data experts.

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For more details, please visit our website.
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