

Visualize Gene Expression & Genetic Variations in Tissues

Applications of RNAscope® and BaseScope™ ISH technology

Speaker:

Morgane Rouault, PhD
Senior Application and Support
Scientist, Europe
Advanced Cell Diagnostics

Date

May 18th 2017

Time

14.00

Room

Salle de conférence

Location

CGFB

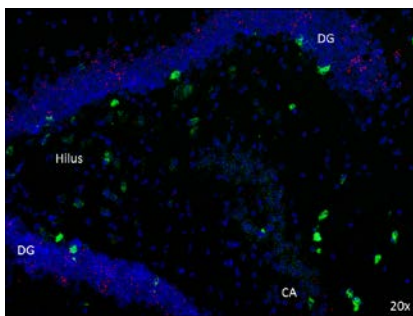
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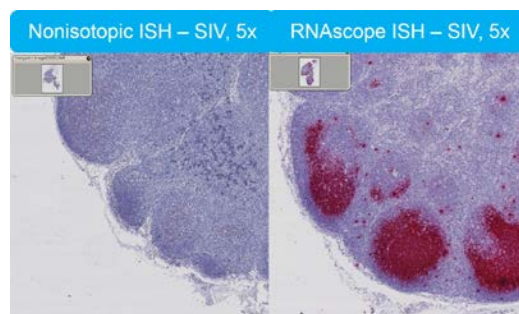
RNAscope® is a proprietary RNA *in situ* hybridization (ISH) assay based on ACD patented signal amplification and background suppression technology which advances RNA biomarker analysis in tissues and cells. Unique to this technology, RNAscope® delivers quantitative, sensitive and specific molecular detection of RNA species on a cell-by-cell basis with morphological context in a single assay. This enables researchers to visualize which genes are expressed, localize where they are expressed, and quantify the level of expression.

Key benefits

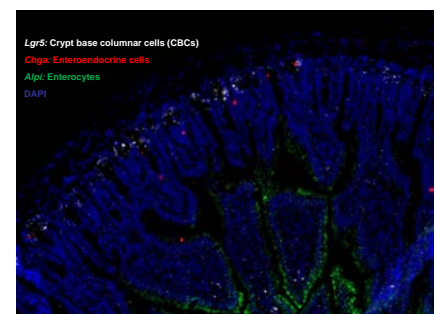
- Detection of a single RNA molecule requires only three double Z probe pairs to bind to the target RNA molecule. The RNAscope® 20 double Z probe pairs design provides robustness against partial target RNA accessibility or degradation.
- Signal amplification coupled with simultaneous background suppression strategy results in single-RNA-molecule detection even in partially degraded samples. Rigorous double Z probes design eliminates cross hybridization to unintended targets and routinely distinguishes RNA sequences with up to 85% homology.
- Provides cell-specific expression information in intact tissue architecture.
- Works for virtually ANY gene from ANY species in ANY tissue.

Sample Images

Duplex detection of G protein-coupled receptors in normal mouse brain hippocampus using the RNAscope® Multiplex Fluorescent assay on Fresh Frozen tissue samples: Cannabinoid Receptor 1 (Cnr1, Green) and Dopaminergic Receptor 1 (Drd1, Red). Cells are counterstained with DAPI. CA = Cornu Ammonis DG = Dentate Gyrus.



Detection of SIV using non-isotopic ISH compared to the RNAscope ISH (red). Data courtesy of Dr. Jacob Estes of NCI



Identification of the cell populations within the intestinal crypt with RNAscope® technology.