

Aug 21, 2020

## 6: Protocol optimization for SABER-FISH in tissues

In 1 collection

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Human Cell Atlas Method Development Community

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### ABSTRACT

This protocol summarizes several tested variations to simplify the SABER-FISH protocol in tissues; In most cases robust signal was found.

This protocol is part of the [SABER-FISH collection](#).

### EXTERNAL LINK

<http://saber.fish/>

### THIS PROTOCOL ACCOMPANIES THE FOLLOWING PUBLICATION

Kishi, J.Y., Lapan, S.W., Beliveau, B.J. et al. SABER amplifies FISH: enhanced multiplexed imaging of RNA and DNA in cells and tissues. Nat Methods 16, 533–544 (2019). <https://doi.org/10.1038/s41592-019-0404-0>

### ATTACHMENTS

SABER amplifies  
FISH\_enhanced  
multiplexed imaging of  
RNA and DNA in cells and  
tissues.pdf

### PROTOCOL CITATION

Jocelyn Y. Kishi, Sylvain W. Lapan, Brian J Beliveau, Emma R. West, Allen Zhu, Hiroshi M. Sasaki, Sinem Saka, Yu Wang, Constance L Cepko, Peng Yin 2020. 6: Protocol optimization for SABER-FISH in tissues.

**protocols.io**

<https://protocols.io/view/6-protocol-optimization-for-saber-fish-in-tissues-bh9vj966>



MANUSCRIPT CITATION please remember to cite the following publication along with this protocol

Kishi, J.Y., Lapan, S.W., Beliveau, B.J. et al. SABER amplifies FISH: enhanced multiplexed imaging of RNA and DNA in cells and tissues. Nat Methods 16, 533–544 (2019). <https://doi.org/10.1038/s41592-019-0404-0>

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COLLECTIONS ⓘ

## SABER-FISH – Signal amplification for multiplexed fluorescence in situ hybridization assays

KEYWORDS

tissue, SABER-FISH

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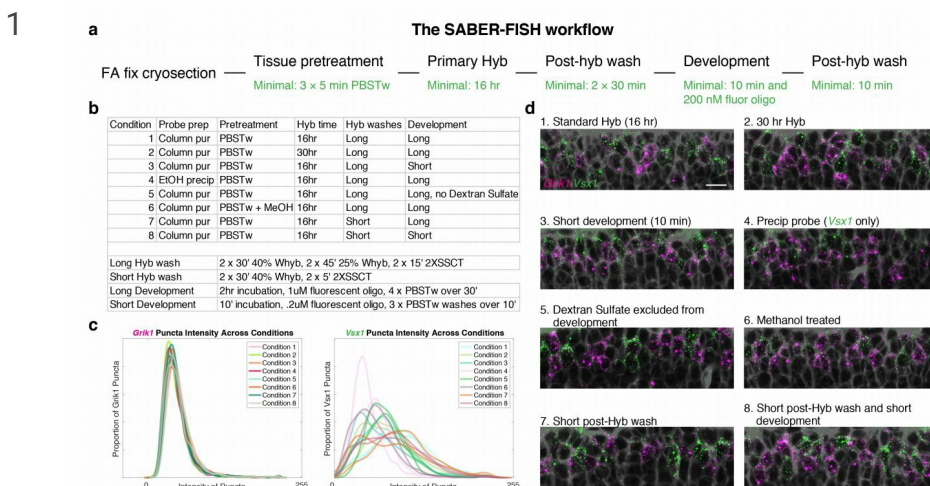
PARENT PROTOCOLS

Part of collection

[SABER-FISH – Signal amplification for multiplexed fluorescence in situ hybridization assays](#)

SAFETY WARNINGS

For hazard information and safety warnings, please refer to the SDS (Safety Data Sheet).



**Figure S3: Testing variations in the RNA FISH staining protocol.** **a**, Overview of main steps in the RNA FISH protocol. The most efficient condition tested in this experiment is shown below each step. **b**, Table of eight conditions tested in side-by-side comparison. See Methods for additional details. **c**, Quantification of signal intensity for conditions tested, with each line representing a replicate (N=2 retinal sections per condition). Each condition was tested using two-color FISH for *Vsx1* and *Grik1*. **d**, Representative images of conditions tested. Scale bar is 10  $\mu$ m. All sections 40  $\mu$ m, from P25 animals.