

Aug 27, 2025

Carver et al, Aged Brain Spatial Profiling - CosMx

 In 1 collection

DOI

<https://dx.doi.org/10.17504/protocols.io.dm6gp3yb5vzp/v1>

Chase Carver¹

¹Mayo Clinic

Cellular Senescence Net...



Chase Carver

Mayo Clinic

Create & collaborate more with a free account

Edit and publish protocols, collaborate in communities, share insights through comments, and track progress with run records.

Create free account

OPEN  ACCESS



DOI: <https://dx.doi.org/10.17504/protocols.io.dm6gp3yb5vzp/v1>

Protocol Citation: Chase Carver 2025. Carver et al, Aged Brain Spatial Profiling - CosMx. protocols.io
<https://dx.doi.org/10.17504/protocols.io.dm6gp3yb5vzp/v1>

License: This is an open access protocol distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Protocol status: Working

We use this protocol and it's working

Created: October 04, 2023

Last Modified: August 27, 2025

Protocol Integer ID: 88813

Keywords: aged brain white matter, modifiable features of aged brain white matter, aged brain spatial profiling, nanostring cosmx platform, associated microglia, cosmx, cosmx this protocol, spatial molecular imaging, process for spatial molecular imaging

Funders Acknowledgements:

NIH Cellular Senescence Network

Grant ID: UG3 CA275669-01

Abstract

This protocol provides the process for spatial molecular imaging using the Nanostring CosMx platform used in Carver et al., "Senescent- and disease-associated microglia are modifiable features of aged brain white matter".



CosMx Slide Preparation

- 1 Using FFPE sections, follow the protocol found in the document

 MAN-10159-02_CosMx_SMI_Manu... 2.7MB

CosMx Instrument run

- 2 Follow the protocol found in the document

 MAN-10161-02-1_CosMx_SMI_Instr... 1.8MB

for imaging of flow cells, FOV selection, and running spatial molecular imaging on the instrument.

The Cell Segmentation Profile used for mouse brain RNA is Configuration B. Cell overlay files are generated with the completion of the CosMx imaging and are used to segment 2D cell areas to be used in conjunction with transcript localization data.

Protocol references

MAN-10159-02_CosMx_SMI_Manual_Slide_Preparation_Manual