

New

LIFE SCIENCE



3D Tissue Staining Kits CUBIC-HV™

See everything in your whole sample

CUBIC-HV™ is a 3D tissue staining kit for large specimens



The images were provided by RIKEN.



CUBIC-HV™1 3D nuclear staining kit

[C3709]

(contains buffers and typical nuclear stains for 3D nuclear staining of CUBIC-cleared tissues.)

CUBIC-HV™1 3D immunostaining kit (Casein separately)

[C3717]

(contains buffers and anti-NeuN antibody (positive control) for 3D imm.)

Reference E. A. Susaki, H. R. Ueda, *et al.*, *Nat. Commun.* **2020**, *11*, 1982. DOI: <https://doi.org/10.1038/s41467-020-15906-5>

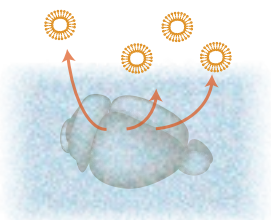
*CUBIC-HV™ is manufactured by CUBICStars Co.

Technical information is also available on the CUBICStars website.
<https://www.cubicstars.com/cubic-hv/index.html>



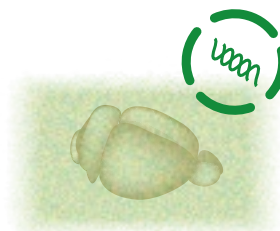
The Workflow

① Delipidation



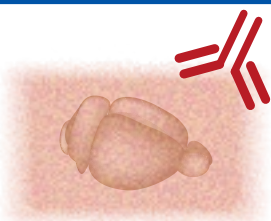
First, your fixed sample is needed to be delipidated for tissue clearing and permeabilization. CUBIC-L [T3740] is a representative delipidation reagent for CUBIC-HV.

② Nuclear staining



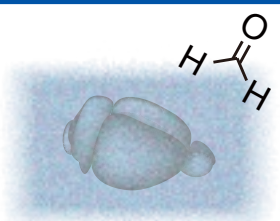
The whole delipidated sample is stained with CUBIC-HV™ 1 3D nuclear staining kit [C3709]. You can choose typical nuclear stains (e.g., DAPI, SYTOX®-G, PI, RedDot™2).

③ Immunostaining



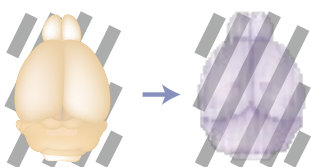
The delipidated and nuclear-stained sample is immunostained with CUBIC-HV™ 1 3D immunostaining kit [C3717]. If you only need nuclear signals, this step can be skipped.

④ Post-fixation



The sample is needed to be post-fixed with formalin diluted with the kit's immunostaining wash buffer before the final clearing step. If you only need nuclear signals, this step can be skipped.

⑤ RI matching



The stained sample can be optically cleared by the refractive index (RI)-matching step of tissue clearing. CUBIC-R+(N) [T3983] or CUBIC-R+(M) [T3741] is a representative RI-matching reagent for CUBIC-HV.

⑥ Image acquisition



Finally, the cleared sample is subjected to the whole-organ 3D imaging using a light-sheet microscope. To use CUBIC-Cloud for whole mouse brain data, you must always have nuclear staining channel for registration.

CUBIC-HV™ is a trademark of CUBICStars Co. SYTOX® is a registered trademark of Molecular Probes, Inc. RedDot™ is a trademark of Biotium, Inc.

Related Products

Tissue-Clearing Reagent CUBIC-L [for delipidation and decoloring]	25mL / 100mL / 500mL [T3740]
Tissue-Clearing Reagent CUBIC-R+(N) [for RI matching]	25mL / 100mL / 500mL [T3983]
Tissue-Clearing Reagent CUBIC-R+(M) [for RI matching]	25mL / 100mL [T3741]
Formalin (37%) (stabilized with Methanol)	300mL [F0622]

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