

EVOTIP

Loading protocol for
Evotip Pure



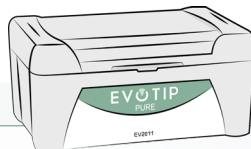
Etotips

Etotips are disposable, purification and loading trap columns.

Etotips fit most standard pipettes and commercial robotic systems.

Using Etotips results in simplified workflows that removes several sample handling steps and reduces injection cycle overheads.

Carry-over is minimized by eluting with a partial gradient in a very precise and reproducible volume that leaves impurities and high-molecular-weight contaminants behind.



Technical details

Specification	Value
Volume	0.5 - 200 μ l
Max. loading capacity	1 ug of complex mixture or 1 pmol of simple protein digest

Ordering information

Part number	Value
EV2011	Etotip Pure, 1 box (96 tips)
EV2013	Etotip Pure, 10 boxes (960 tips)
EV2015	Etotip Pure, 50 boxes (4800 tips)
EV2018	Etotip Pure, 100 boxes (9600 tips)

Required Material

1. Box of Evotips.
2. Mass Spec Grade 1-Propanol, alternatively 2-Propanol.
3. Solvent A: Mass Spec Grade Water with 0.1% Formic Acid, JT Baker P/N: JT-9834-2 or equivalent.
4. Solvent B: Mass Spec Grade Acetonitrile with 0.1% Formic Acid, JT Baker P/N: JT-9832-2 or equivalent.
5. Multichannel pipette.
6. Solvent containers for multichannel pipette, e.g. Dual Solution Reservoir HEA20281A from Heathrow Scientific www.heathrowscientific.com/dual-solution-reservoir-i-hea20821a.
7. Single-well plate, e.g. 242811 from Thermo Scientific, www.thermofisher.com/order/catalog/product/242811. Do not use this plate with Acetonitrile.
8. Evotip adaptor rack (EV1068).
9. Gloves.
10. Table centrifuge.
11. Fume hood.

Important info

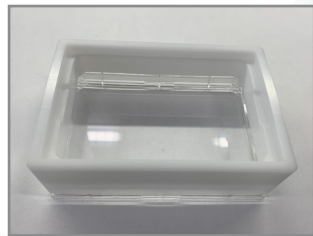
- **At all centrifugation steps use max acceleration and de-acceleration.**
- **After each centrifugation step, empty the box for liquid.**
- **Please note that the following settings are guidelines, adjustment might be needed depending on the actual centrifuge.**
- **Centrifugation should be performed at room temperature.**

Wear safety glasses, lab coat and gloves and work in fume hood when following this procedure.

Prepare solvents and containers

1. **Pour Solvent A, Solvent B and Propanol into their respective solvent containers.**

(The recommended dual purpose containers can either be used as a single reservoir or as 12 individual ones).

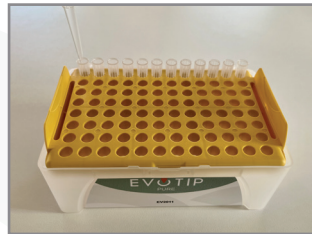


Rinse

1. Transfer 20 μ l Solvent B to all Evotips.
2. Place the Evotips in the centrifuge with appropriate counter balance and centrifuge at 800 g for 60 seconds.

IMPORTANT

EMPTY THE BOX FOR FOR LIQUID
AFTER CENTRIFUGATION STEP

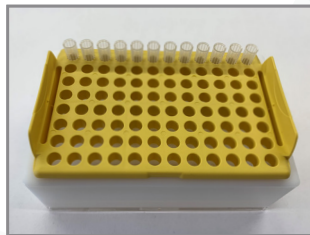
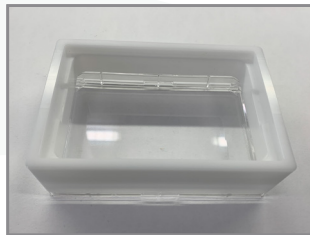


Condition

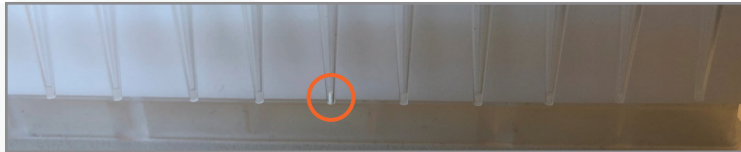
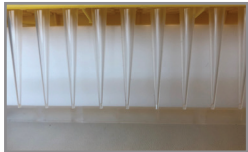
1. Place the Evotip adaptor rack on top of the single-well plate with Propanol.
2. Soak for a minimum of 10 seconds and then visually inspect that Evotips are pale white.


VERY IMPORTANT

**ENSURE THAT ALL EVOTIPS
ARE PALE WHITE AFTER SOAKING**



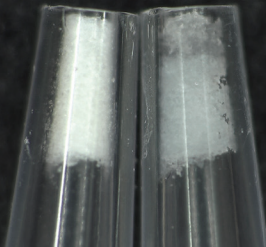
Let the Evotips soak until all are pale white



 *Not pale white*

White vs pale white

**This step might take
up 10-20 seconds**

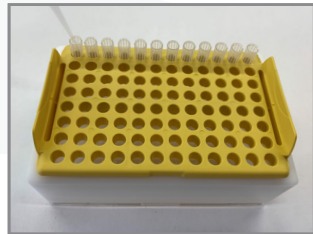


Equilibrate

1. With the Evtips still in the adapter rack, transfer 20 μ l Solvent A to each Evtip.
2. Place the Evtips in the centrifuge with appropriate counter balance and centrifuge at 800 g for 60 seconds.

IMPORTANT

EMPTY THE BOX FOR LIQUID
AFTER CENTRIFUGATION STEP



Sample load

1. Place the Evtips in the original tray and transfer the sample (20 μ l) to each Evtip.

IMPORTANT

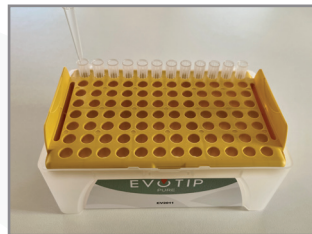
DO NOT PLACE THE EVOTIPS IN THE PROPANOL ADAPTOR AT THIS STAGE!

Solvent A can be added to the bottom of the Evtip box, to keep the Evtips wet during sample loading.

2. Place the Evtips in the centrifuge with counter balance and centrifuge at 800 g for 60 seconds.

IMPORTANT

EMPTY THE BOX FOR LIQUID AFTER CENTRIFUGATION STEP

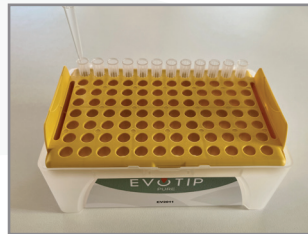


Wash

1. Transfer 20 μ l Solvent A to each Evotip.
2. Place the Evotips in the centrifuge with appropriate counter balance and centrifuge at 800 g for 60 seconds.

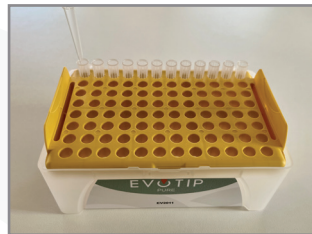
IMPORTANT

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Preservation

1. Transfer 100 μ l Solvent A to each Evtip.
2. Place the Evtips in the centrifuge with appropriate counter balance and centrifuge at 800 g for 10 seconds to keep Evtips wet.



Storage recommendation

1. Add enough Solvent A to the bottom of the tray so the bottom of the Evtips are submerged and store at 4°C with lid on until analysis.



Quick guide

Evotip Pure (EV2011)



RINSE

Wash dry Evotips with 20 μ l Solvent B and centrifuge at 800 g for 60 s.



CONDITION

Soak in Propanol until all the Evotips are pale white.



EQUILIBRATE

Equilibrate soaked Evotips with 20 μ l Solvent A and centrifuge at 800 g for 60 s.



LOAD

Load samples on wet Evotips (20 μ l in Solvent A) and centrifuge at 800 g for 60 s.



WASH

Wash Evotips with 20 μ l Solvent A and centrifuge at 800 g for 60 s.



WET

Transfer 100 μ l Solvent A and centrifuge Evotips at 800 g for 10 s to keep them wet.



EVOTIP SEP

NOTES

1. Ensure Evotips are continuously wet after soaking in Propanol.
2. Transfer Evotips to Solvent A tray in loading step to avoid that they dry out.
3. Prepare Evotips just prior to MS analysis, but for longer storage add Solvent A in the bottom of the box and store cold with lid on.
4. Empty the box for liquid after each centrifugation steps to ensure reproducible sample loading.