EVOTIP

Loading protocol for Evotip Pure

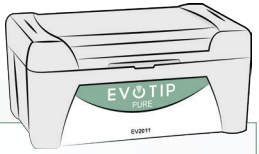
Evotips

Evotips are disposable, purification and loading trap columns.

Evotips fit most standard pipettes and commercial robotic systems.

Using Evotips 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 µl
Max. loading capacity	1 ug of complex mixture or 1 pmol of simple protein digest

Ordering information

Part number	Value
EV2011	Evotip Pure, 1 box (96 tips)
EV2013	Evotip Pure, 10 boxes (960 tips)
EV2015	Evotip Pure, 50 boxes (4800 tips)
EV2018	Evotip 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 Solvent B (Acetonitrile).
8. Rack Holder w/bars (EV1166, Evosep).
9. Gloves.
10. Table centrifuge.
11. Fume hood.

Important info

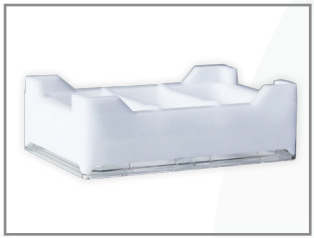
- **At all centrifugation steps use max acceleration and de-accelaration.**
- **After each centrifugation step, empty liquid from the box.**
- **Please note that the following settings are guidelines, adjustment might be needed depending on the actual centrifuge.**
- **Centrifugation should be performed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

Follow local safety guidelines incl. the use of safety glasses, lab coat, gloves and a chemical safety cabinet when following this procedure.

Prepare solvents and containers

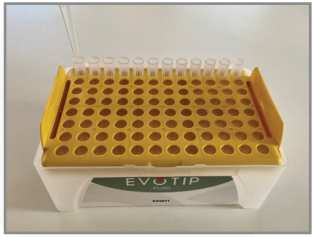
1. **Pour Solvent A and Solvent B into their respective solvent containers, and Propanol into the single-well plate.**

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



Rinse

1. Transfer 20 µl 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

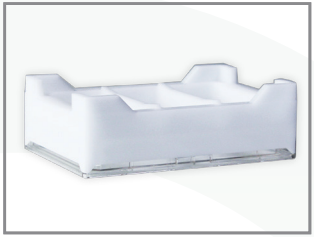
EMPTY LIQUID FROM THE BOX AFTER EACH CENTRIFUGATION STEP.

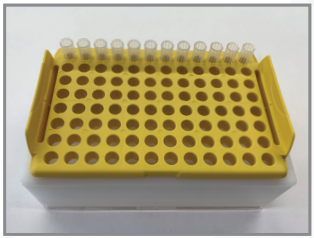
Condition

1. Place the Evotip adapter rack on top of the single-well plate with Propanol.
2. Place the rack of Evotips onto this adapter so that the tips contact the Propanol.
3. Soak for a minimum of 10 seconds and then visually inspect that Evotips are pale white.

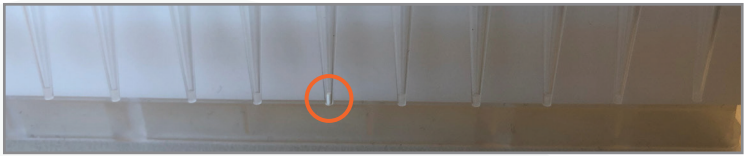
VERY IMPORTANT

ENSURE THAT ALL EVOTIPS ARE PALE WHITE AFTER SOAKING

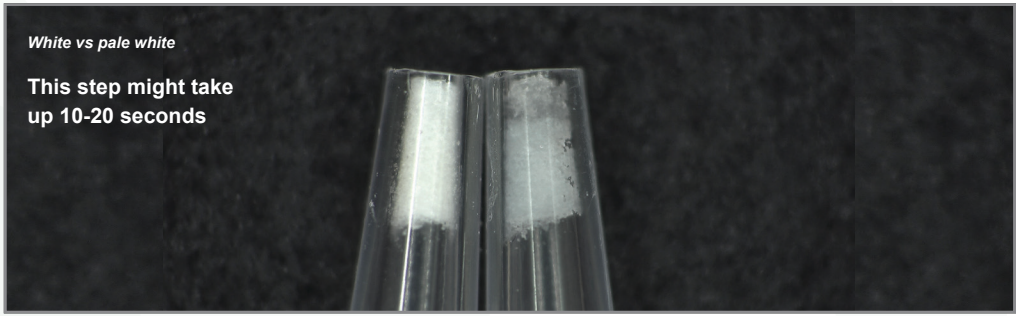




Let the Evotips soak until all are pale white

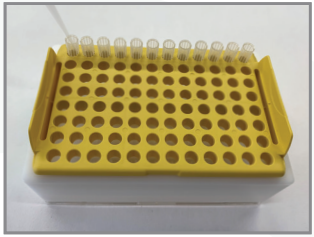


Not pale white

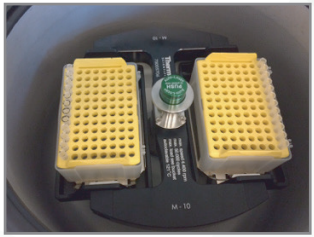


Equilibrate

1. **With the Evotips still in the adapter rack, transfer 20 µl 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

EMPTY LIQUID FROM THE BOX AFTER EACH CENTRIFUGATION STEP.

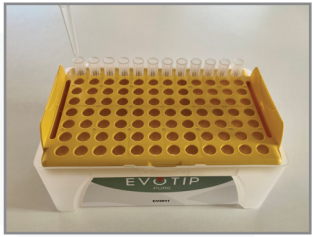
Load sample

1. **Place the Evotips in the original tray and transfer the sample (20 µl) to each Evotip.**

IMPORTANT

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

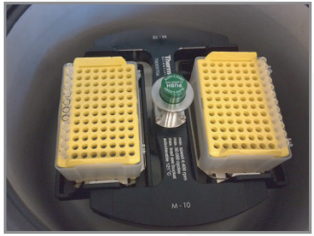
Solvent A can be added to the bottom of the Evotip box, to keep the Evotips wet during sample loading.



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

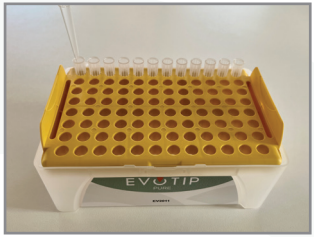
IMPORTANT

EMPTY LIQUID FROM THE BOX AFTER EACH CENTRIFUGATION STEP.

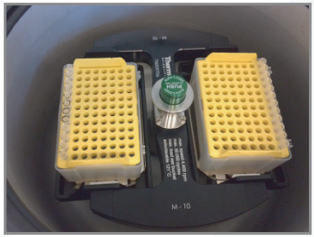


Wash

1. **Transfer 20 µl Solvent A to each Evotip.**



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

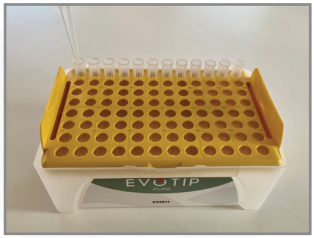


IMPORTANT

EMPTY LIQUID FROM THE BOX AFTER EACH CENTRIFUGATION STEP.

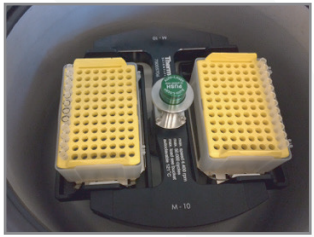
Preservation

1. Transfer 100 µl Solvent A to each Evotip.
2. Place the Evotips in the centrifuge with appropriate counter balance and centrifuge at 800 g for 10 seconds to keep Evotips wet.



Storage recommendation

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



Quick guide

Evotip Pure (EV2011)

RINSE
Wash dry Evotips with 20 µl 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 µl Solvent A and centrifuge at 800 g for 60 s.

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

WASH
Wash Evotips with 20 µl Solvent A and centrifuge at 800 g for 60 s.

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

EVOSEP

NOTES

1. **Ensure Evotips are continously 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 refrigerated with lid on.**
4. **Empty liquid from the box after each centrifugation step.**

www.evosep.com

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