# Ethanol precipitation of nucleic acids (96-well plate)

**OpenWetWare**


## Abstract

Nucleic acid precipitation is used to concentrate and/or purify nucleic acids. The below protocol is based on the fact that nucleic acids are less soluble in alcohol than in more polar water. Addition of salt further decreases solubility by competing for water dipoles; as does low temperature. Please see the OpenWetWare website for more details.


**Citation**: OpenWetWare contributors, 'Ethanol precipitation of nucleic acids', *OpenWetWare, ,* 1 July 2012, 10:48 UTC, <http://openwetware.org/index.php?title=Ethanol_precipitation_of_nucleic_acids&oldid=611420 > [accessed 21 January 2015]

**Citation:** OpenWetWare Ethanol precipitation of nucleic acids (96-well plate). **protocols.io** dx.doi.org/10.17504/protocols.io.cdss6d
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## Protocol

**Step 1.**
Add to each 10 µl product: 1.9 µl of Na acetate 3M

AMOUNT
2 µl Additional info:

REAGENTS
Sodium acetate View by P212121

**Step 2.**
Add to each 10 µl product: 60 µl of 85% ethanol

AMOUNT
60 µl Additional info:

**Step 3.**
Mix thoroughly (vortex ???) and keep at -20°C for 30 min

DURATION
00:30:00

**Step 4.**
centrifuge for 45 min at 4000 rpm and 4°C

DURATION
00:45:00

**Step 5.**
remove supernatant (invert tube on trash once)

**Step 6.**
add 150 µl of 70% ethanol and mix

AMOUNT

150 µl Additional info:

**Step 7.**
centrifuge for 15 min at 4000 rpm and 4°C

DURATION
00:15:00

**Step 8.**
remove all supernatant (invert tube on trash)

**Step 9.**
invert tube on paper tissue

**Step 10.**
centrifuge for 2 min at 500 rpm

DURATION
00:02:00

**Step 11.**
take out the tube and let it dry in the fume hood at room temperature for 10-15 min

DURATION
00:10:00

**Step 12.**
put 20 µl of formide dye using multipipette (nasty chemical to manipulate in fume hood)

AMOUNT
20 µl Additional info:

**Step 13.**
vortex thoroughly/spin/vortex/spin

**Step 14.**
transfer the 20 µl (multipipette) in a sequencing plate

**Step 15.**
put septum on top, press, tap once (do NOT mix)

**Step 16.**
keep on ice in aluminium rack

**Step 17.**
Heat 3 min at 95°C (SWATI/95-CST) to keep in single stranded form

DURATION
00:03:00

**Step 18.**
keep on ice in aluminium rack