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# ATAC-seq protocol

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**Protocol status:** Working
**We use this protocol and it's working**

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## Abstract

ATAC-seq protocol for ESC-DE differentiation

## Troubleshooting

## ATAC-seq protocol

1 50K cryopreserved cells were washed in cold PBS and lysed.

2 The transposition reaction containing TDE1 Tagment DNA Enzyme (Illumina; 20034198) was incubated at 37°C for 30 minutes.

3 The DNA was purified with the MinElute PCR Purification Kit (QIAGEN; 28004) and amplified for 5 cycles using NEBNext High-Fidelity 2X PCR Master Mix (New England Biolabs; M0541L).

4 After evaluation by real-time PCR, 3-14 additional PCR cycles were done.

5 The final product was cleaned by AMPure XP beads (Beckman Coulter; A63882) at a 1X ratio, and size selection was performed at a 0.5X ratio.

6 Libraries were sequenced on a HiSeq 4000 or NovaSeq 6000 platform in a PE50 run, using the HiSeq 3000/4000 SBS Kit or NovaSeq 6000 S1 Reagent Kit (100 Cycles) (Illumina).