ChIC/CUT&RUN Service
Sample Preparation

Active Motif recommends preparing at least 500,000 cells for each CUT&RUN reaction. If examining multiple targets with CUT&RUN, please provide separate tubes of cells for each reaction and approximately the same number of cells per tube within a project.

NOTE: Cells must be cryopreserved. Flash frozen cell pellets are not compatible with this service. For high quality data, we recommend sending samples with >70% cell viability. Please thaw a test sample to test post-thaw viability.

Reagents

Enzyme Free Cell Dissociation Solution Hank's Based (1X) (Millipore-Sigma, Cat. No. S-004-M) or equivalent

Cryopreservation of cells

1. Incubate Mr. Frosty or equivalent device at 4°C for a minimum of 1 hour prior to use.
2. For healthy adherent cells lines, use Enzyme-Free Cell Dissociation Solution and scrape cells with a rubber policeman or by pipetting. DO NOT use enzyme-based dissociation methods. For healthy suspension cells, transfer cells in growth media to a conical tube for pelleting.
3. Harvest cells at room temperature and count cells using hemocytometer or equivalent method to determine volume needed to achieve the proper concentration of 500,000 cells for cryopreservation. While quantifying, keep cells on ice. Using low-bind microcentrifuge tubes may help avoid potential sample loss.
4. Centrifuge at 500 x *g* at 4°C to pellet the cells and remove supernatant.
5. Resuspend cells in 500 µL of ice-cold cryopreservation solution – 50% FBS/40% growth media/10% DMSO. Depending on your cell type, the concentration of FBS may be adjusted. Transfer 500 µL to a 1.5 mL Eppendorf tube on ice.
6. Freeze the cells by transferring the tubes to a pre-chilled Mr. Frosty container or equivalent device, like the one depicted below and place at -80° C.
7. If necessary, an alternate approach is to place the tubes upright in a styrofoam container. Close the styrofoam container with the styrofoam top and then place at -80° C.