SNF2L/SMARCA1 CUTANA™ CUT&RUN Antibody

Catalog No. 13-2005
Lot No. 21013001-39
Pack Size 100 µL

Type Polyclonal **Target Size** 123 kDa **Reactivity** Human (predicted: M)
Host Rabbit **Format** Aff. Pur. IgG **Applications** CUT&RUN, IP, IHC

Product Description:

This antibody meets EpiCypher's "CUTANA Compatible" criteria for performance in Cleavage Under Targets and Release Using Nuclease (CUT&RUN) and/or Cleavage Under Targets and Tagmentation (CUT&Tag) approaches to genomic mapping. Every lot of a CUTANA Compatible antibody is tested in the indicated CUTANA approach using EpiCypher optimized protocols (EpiCypher.com/resources/protocols) and determined to yield peaks that show a genomic distribution pattern consistent with reported function(s) of the target protein. SNF2L antibody produces CUT&RUN peaks above background (**Figure 1**) that overlap with H3K4me3 (**Figures 1-2**), consistent with its known role as the ATP-dependent helicase subunit of the NURF ISWI chromatin remodeler complex (1).

Immunogen:

A synthetic peptide corresponding to human SNF2L amino acids 1004 to 1054.

Formulation:

Antigen affinity-purified antibody (1 mg/mL) in Tris-citrate/phosphate buffer pH 7 to 8, 0.09% sodium azide.

Storage and Stability:

Stable for 1 year at 4°C from date of receipt.

Application Notes:

Recommended Dilutions:

CUT&RUN: 0.5 µg **IP**: 2 - 10 µg/mg lysate
IHC: 1:1,000 - 1:5,000*

**Epitope retrieval with citrate buffer pH 6.0 recommended for FFPE tissue*

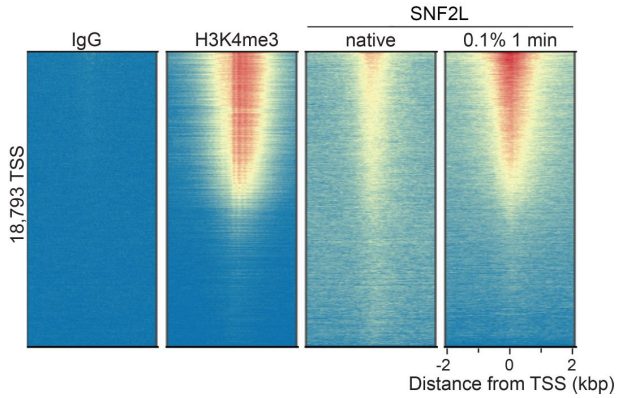

Figure 1: SNF2L enrichment at annotated transcription start sites (TSSs) in CUT&RUN. CUT&RUN was performed using 500,000 K562 cells with SNF2L and control antibodies (0.5 µg each; IgG, EpiCypher 13-0042; H3K4me3, EpiCypher 13-0041). Sequencing reads were aligned to TSSs (+/- 2 kbp) of 18,793 genes. Signal (red) over background (blue) is ranked by intensity (top to bottom). All rows aligned to SNF2L antibody with moderate fixation (0.1% formaldehyde, 1 min), which improved signal vs. native conditions.

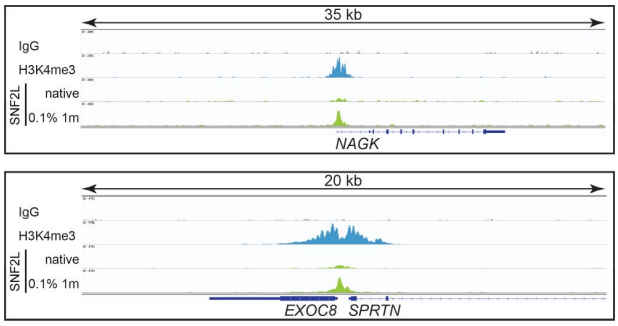

Figure 2: SNF2L CUT&RUN peaks and functional overlap. Two representative gene loci from the CUT&RUN data in Figure 1 are shown. SNF2L enrichment overlaps with H3K4me3 peaks, consistent with its reported function as a member of the NURF ISWI chromatin remodeler complex (1). Improved signal recovery with moderate fixation (0.1% formaldehyde, 1 min), is notable. Images generated in Integrative Genomics Viewer (Broad Institute).

References:

1. Wysocka et al (2006) *Nature* 442:86-90.

Applications Key: ChIP: Chromatin immunoprecipitation; CUT&RUN: Cleavage Under Targets and Release Using Nuclease; CUT&Tag: Cleavage Under Targets and Tagmentation; E: ELISA; FACS: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence; IHC: Immunohistochemistry; IP: Immunoprecipitation; L: Luminex; WB: Western Blot. **Reactivity Key**: B: Bovine; Ce: *C. elegans*; Ch: Chicken; Dm: *Drosophila*; Eu: Eukaryote; H: Human; M: Mouse; Ma: Mammal; R: Rat; Sc: *S.cerevesiae*; Sp: *S. pombe*; WR: Wide Range (predicted); X: Xenopus; Z: Zebrafish

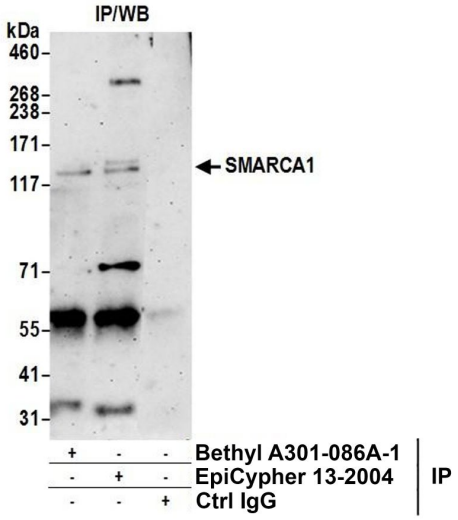

Figure 3: Immunoprecipitation of human SNF2L. EpiCypher SNF2L antibody (6 µg) was used to immunoprecipitate whole cell lysates isolated from HeLa cells using NETN lysis buffer (0.5 - 1.0 mg per IP). A negative control IgG antibody and positive control SNF2L antibody (Bethyl Laboratories) were also used for comparison. Immunoprecipitates were loaded onto 4-8% SDS-PAGE gel (20% of IP loaded) and probed via western blot with EpiCypher SNF2L antibody (1 µg/mL).

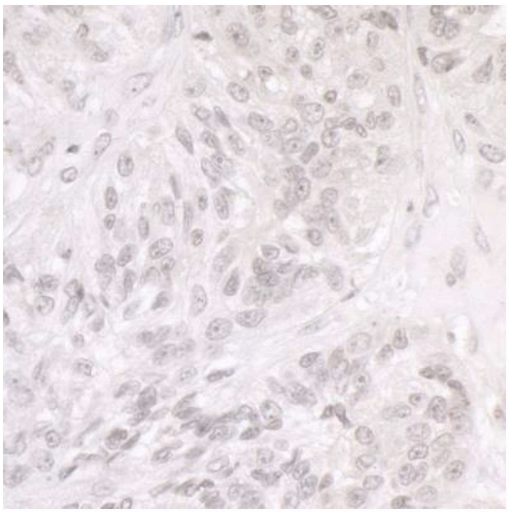

Figure 4: Immunohistochemistry detection of human SNF2L. FFPE section of human ovarian carcinoma examined using SNF2L antibody (1:1,000 dilution, 1 µg/mL).

Applications Key: ChIP: Chromatin immunoprecipitation; CUT&RUN: Cleavage Under Targets and Release Using Nuclease; CUT&Tag: Cleavage Under Targets and Tagmentation; E: ELISA; FACS: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence; IHC: Immunohistochemistry; IP: Immunoprecipitation; L: Luminex; WB: Western Blot. **Reactivity Key**: B: Bovine; Ce: *C. elegans*; Ch: Chicken; Dm: *Drosophila*; Eu: Eukaryote; H: Human; M: Mouse; Ma: Mammal; R: Rat; Sc: *S.cerevesiae*; Sp: *S. pombe*; WR: Wide Range (predicted); X: Xenopus; Z: Zebrafish