SANTA CRUZ BIOTECHNOLOGY, INC.

CHRAC17 (E-11): sc-376242

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

DNA replication is initiated by the binding of initiation factors to the origin of replication. Nucleosomes inhibit access to the replication machinery at these origin sequences. Nucleosome remodeling factors increase the accessibility of nucleosomal DNA to transcriptional regulators. CHRAC15 and CHRAC17 are subunits of the nucleosomal remodeling factor CHRAC (chromatin accessibility complex), which increases the accessibility of nucleosomal DNA in an ATP-dependent manner. Unlike other known chromatin remodelling factors, CHRAC also functions during chromatin assembly by using ATP to convert irregular chromatin into a regular array of nucleosomes with even spacing. This conversion process occurs when CHRAC organizes randomly deposited histones into a regularly spaced array. In the presence of CHRAC, the nucleosomal ATPase ISWI catalyses several ATP-dependent transitions of chromatin structure.

REFERENCES

1. Varga-Weisz, P.D., et al. 1997. Chromatin-remodelling factor CHRAC contians the ATPases ISWI and topoisomerase II. Nature 388: 598-602.
2. Alexiadis, V., et al. 1998. *In vitro* chromatin remodelling by chromatin accessibility complex (CHRAC) at the SV40 origin of DNA replication. EMBO J. 17: 3428-3438.
3. Langst, G., et al. 1999. Nucleosome movement by CHRAC and ISWI without disruption or *trans*-displacement of the histone octamer. Cell 97: 843-852.

CHROMOSOMAL LOCATION

Genetic locus: POLE3 (human) mapping to 9q32; Pole3 (mouse) mapping to 4 B3.

SOURCE

CHRAC17 (E-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 67-105 within an internal region of CHRAC17 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-376242 X, 200 µg/0.1 ml.

CHRAC17 (E-11) is available conjugated to agarose (sc-376242 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376242 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376242 PE), fluorescein (sc-376242 FITC), Alexa Fluor® 488 (sc-376242 AF488), Alexa Fluor® 546 (sc-376242 AF546), Alexa Fluor® 594 (sc-376242 AF594) or Alexa Fluor® 647 (sc-376242 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376242 AF680) or Alexa Fluor® 790 (sc-376242 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376242 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

CHRAC17 (E-11) is recommended for detection of CHRAC17 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CHRAC17 (E-11) is also recommended for detection of CHRAC17 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CHRAC17 siRNA (h): sc-38615, CHRAC17 siRNA (m): sc-38616, CHRAC17 shRNA Plasmid (h): sc-38615-SH, CHRAC17 shRNA Plasmid (m): sc-38616-SH, CHRAC17 shRNA (h) Lentiviral Particles: sc-38615-V and CHRAC17 shRNA (m) Lentiviral Particles: sc-38616-V.

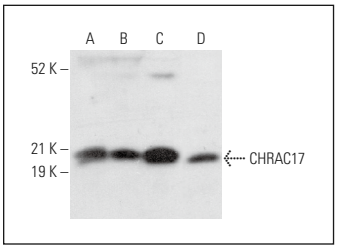
CHRAC17 (E-11) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Positive Controls: HeLa whole cell lysate: sc-2200, MCF7 whole cell lysate: sc-2206 or K-562 whole cell lysate: sc-2203.

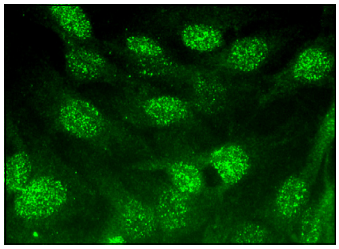
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CHRAC17 (E-11): sc-376242. Western blot analysis of CHRAC17 expression in HeLa (**A**), MCF7 (**B**), K-562 (**C**) and PC-12 (**D**) whole cell lysates.



CHRAC17 (E-11): sc-376242. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.