**BACKGROUND**

The critical role that the family of regulatory proteins known as cyclins play in eukaryotic cell cycle regulation is well established. The best-characterized cyclin complex is the mitotic cyclin B/Cdc2 p34 kinase, the active component of maturing promoting factor. Cyclin A accumulates prior to cyclin B in the cell cycle, appears to be involved in control of S phase and has been shown to associate with cyclin-dependent kinase-2 (Cdk2). In addition, cyclin A has been implicated in cell transformation and is found in complexes with E1A, transcription factors DRF1 and E2F and retinoblastoma protein, p110. A second form of cyclin A, named cyclin A1 because of its high sequence homology to *Xenopus* cyclin A1, is most highly expressed in germ cells. It has been proposed that cyclin A1 can associate with Cdk2, p39 and Cdc2 p34.

**CHROMOSOMAL LOCATION**

Genetic locus: CCNA2 (human) mapping to 4q27, CCNA1 (human) mapping to 13q13.3; Ccn a2 (mouse) mapping to 3 B, Cc na1 (mouse) mapping to 3 C.

**SOURCE**

cyclin A (H-432) is a rabbit polyclonal antibody raised against amino acids 1-432 representing full length cyclin A of human origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as agarose conjugate for immunoprecipitation, sc-751 AC, 500 µg/0.25 ml agarose in 1 ml; as TransCruz reagent for ChIP application, sc-751 X, 200 µg/0.1 ml; as HRP conjugate for Western blotting, sc-751 HRP, 200 µg/1 ml; and as fluorescein (sc-751 FITC) or rhodamine (sc-751 TRITC) conjugates for immunofluorescence, 200 µg/1 ml.

**APPLICATIONS**

cyclin A (H-432) is recommended for detection of cyclin A and cyclin A1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

cyclin A (H-432) is also recommended for detection of cyclin A and cyclin A1 in additional species, including equine, canine, bovine and porcine.

cyclin A (H-432) X TransCruz antibody is recommended for ChIP assays.

Molecular Weight of cyclin A: 54 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, HeLa whole cell lysate: sc-2200 or U-937 cell lysate: sc-2239.

**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.

**DATA**

![Western blot analysis of cyclin A expression in MCF7 (A), SK-BR-3 (B), A-431 (C), HeLa (D) and U-937 (E) whole cell lysates.](image1)

![Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing nuclear staining.](image2)

**SELECT PRODUCT CITATIONS**