SANTA CRUZ BIOTECHNOLOGY, INC.

Cytokeratin 13 (D-16): sc-31703

The Power to Question

BACKGROUND

Cytokeratins comprise a diverse group of intermediate filament proteins (IFPs) that are expressed as pairs in both keratinized and non-keratinized epithelial tissue. Cytokeratins play a critical role in differentiation and tissue specialization and function to maintain the overall structural integrity of epithelial cells. Cytokeratins have been found to be useful markers of tissue differentiation, which is directly applicable to the characterization of malignant tumors. Cytokeratins 10 and 13 are present in the cytoskeletal region of a subset of squamous cell carcinomas. Cytokeratin 13 belongs to the intermediate filament family and is a heterotetramer of two type I acidic and two type II basic keratins. It is generally associated with cytokeratin 4. Defects in the KRT13 gene are a cause of white sponge nevus of cannon (WSN), a rare autosomal dominant disorder which predominantly affects noncornified stratified squamous epithelia, and is characterized by the presence of soft, white and spongy plaques in the oral mucosa.

CHROMOSOMAL LOCATION

Genetic locus: KRT13 (human) mapping to 17q21.2; Krt13 (mouse) mapping to 11 D.

SOURCE

Cytokeratin 13 (D-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Cytokeratin 13 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.

Blocking peptide available for competition studies, sc-31703 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cytokeratin 13 (D-16) is recommended for detection of Cytokeratin 13 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with Cytokeratin 15.

Cytokeratin 13 (D-16) is also recommended for detection of Cytokeratin 13 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Cytokeratin 13 siRNA (h): sc-43308, Cytokeratin 13 siRNA (m): sc-44558, Cytokeratin 13 shRNA Plasmid (h): sc-43308-SH, Cytokeratin 13 shRNA Plasmid (m): sc-44558-SH, Cytokeratin 13 shRNA (h) Lentiviral Particles: sc-43308-V and Cytokeratin 13 shRNA (m) Lentiviral Particles: sc-44558-V.

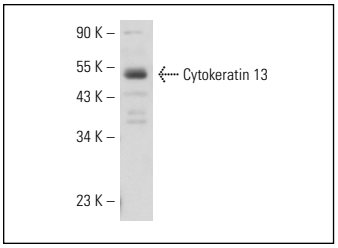
Molecular Weight of Cytokeratin 13: 52 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201 or human throat tissue extract.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Cytokeratin 13 (D-16): sc-31703. Western blot analysis of Cytokeratin 13 expression in human throat tissue extract.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.