

Cytokeratin 20 (G-20): sc-17113

BACKGROUND

Cytokeratins comprise a diverse group of intermediate filament proteins (IFPs) that are expressed as pairs in both keratinized and non-keratinized epithelial tissue, where they constitute up to 85% of mature keratinocytes in the vertebrate epidermis. Cytokeratins play a critical role in differentiation and tissue specialization and function to maintain the overall structural integrity of epithelial cells. The α -helical coiled-coil dimers associate laterally end-to-end to form 10-nm diameter filaments. Cytokeratins are useful markers of tissue differentiation, and in addition, they aid in the characterization of malignant tumors. Cytokeratin 20 is abundantly expressed in goblet cells and enterocytes of the gastrointestinal tract, and cytokeratin 20 is a useful marker of pancreatic and colorectal cancer. Cytokeratin 20 is also helpful in distinguishing different types of highly related carcinomas, such as renal oncocyomas from renal cell carcinomas.

CHROMOSOMAL LOCATION

Genetic locus: KRT20 (human) mapping to 17q21.2.

SOURCE

Cytokeratin 20 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Cytokeratin 20 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-17113 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Cytokeratin 20 (G-20) is recommended for detection of Cytokeratin 20 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for Cytokeratin 20 siRNA (h): sc-43313, Cytokeratin 20 shRNA Plasmid (h): sc-43313-SH and Cytokeratin 20 shRNA (h) Lentiviral Particles: sc-43313-V.

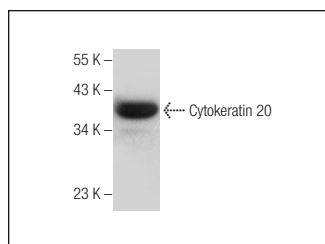
Molecular Weight of Cytokeratin 20: 46 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, T84 whole cell lysate: sc-364797 or human colon extract: sc-363757.

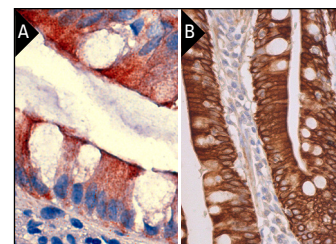
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Cytokeratin 20 (G-20): sc-17113. Western blot analysis of Cytokeratin 20 expression in T84 whole cell lysate.



Cytokeratin 20 (G-20): sc-17113. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic and membrane staining of glandular cells (B).

SELECT PRODUCT CITATIONS

1. Park, E.Y., et al. 2007. Retinol inhibits the invasion of retinoic acid-resistant colon cancer cells *in vitro* and decreases matrix metalloproteinase mRNA, protein, and activity levels. *Nutr. Cancer* 57: 66-77.
2. Park, E.Y., et al. 2012. Hepatic vitamin A preloading reduces colorectal cancer metastatic multiplicity in a mouse xenograft model. *Nutr. Cancer* 64: 732-740.
3. Cernat, L., et al. 2014. Colorectal cancers mimic structural organization of normal colonic crypts. *PLoS ONE* 9: e104284.

RESEARCH USE

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

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Try **Cytokeratin 20 (E-9): sc-271183** or **Cytokeratin 20 (SPM140): sc-56522**, our highly recommended monoclonal alternatives to Cytokeratin 20 (G-20).