**BACKGROUND**

Cytokeratins comprise a diverse group of intermediate filament proteins 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. Cytokeratin 9 is an unusually large, type I acidic cytokeratin that differentiates human planar and palmar epidermal cells. Cytokeratin 9 localizes to the suprabasal layers as well as the upper epidermal layers such as the glandular ridges and interridges. The domains of Cytokeratin 9 include a head, an α-helical coiled-coil-forming rod and a tail; Cytokeratin 9 shares significant homology with Cytokeratin 10. Mutations in the Cytokeratin 9 gene correlate with the development of epidermolytic palmoplantar keratoderma (EPPK), an autosomal dominant inherited skin disorder that is characterized by hyperkeratosis of the skin over the palms and soles.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: KRT9 (human) mapping to 17q21.2.

**SOURCE**

Cytokeratin 9 (D-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Cytokeratin 9 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-49431 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

**RESEARCH USE**

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

**APPLICATIONS**

Cytokeratin 9 (D-16) is recommended for detection of Cytokeratin 9 of 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).

Suitable for use as control antibody for Cytokeratin 9 siRNA (h): sc-60501, Cytokeratin 9 shRNA Plasmid (h): sc-60501-SH and Cytokeratin 9 shRNA (h) Lentiviral Particles: sc-60501-V.

**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**

**STORAGE**

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

**MONOSATISFACTION GUARANTEED**

Try Cytokeratin 9 (Ks.9.70/Ks9.216): sc-58743, our highly recommended monoclonal alternative to Cytokeratin 9 (D-16).