SANTA CRUZ BIOTECHNOLOGY, INC.

KRT222P (C-15): sc-241514

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

KRT222P (keratin-like protein KRT222), also known as KA21, is a 295 amino acid protein belonging to the intermediate filament family. The gene encoding KRT222P has been listed as a pseudogene, however it has not been established that the protein is not translated, and is therefore treated as a protein coding gene. Existing as two alternatively spliced isoforms, the gene encoding KRT222P maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, though specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: KRT222 (human) mapping to 17q21.2; Krt222 (mouse) mapping to 11 D.

SOURCE

KRT222P (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of KRT222P 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-241514 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KRT222P (C-15) is recommended for detection of KRT222P of human origin and KRT222 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other Keratin family members.

KRT222P (C-15) is also recommended for detection of KRT222P in additional species, including equine and canine.

Suitable for use as control antibody for KRT222P siRNA (h): sc-106867, KRT222 siRNA (m): sc-146574, KRT222P shRNA Plasmid (h): sc-106867-SH, KRT222 shRNA Plasmid (m): sc-146574-SH, KRT222P shRNA (h) Lentiviral Particles: sc-106867-V and KRT222 shRNA (m) Lentiviral Particles: sc-146574-V.

Molecular Weight of KRT222P isoforms 1/2: 34/29 kDa.

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) 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.

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.