SANTA CRUZ BIOTECHNOLOGY, INC.

POTE21 (E-15): sc-83508

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

POTE21 (prostate, ovary, testis-expressed protein on chromosome 21), also known as ANKRD21 (ankyrin repeat domain-containing protein 21), POTED, A26B3 or POTE, is a 584 amino acid peripheral membrane protein that contains 6 ankyrin repeats and belongs to the POTE family. Expressed in testis, ovary and placental tissue, as well as in prostate cancer cell lines, ANKRD21 is thought to play a role in reproductive processes, such as spermatogenesis, and may be involved in tumor progression. The gene encoding ANKRD21 maps to chromosome 21, which houses approximately 300 genes and comprises nearly 1.5% of the human genome. Chromosome 21-associated disorders include Alzheimer's disease, amyotrophic lateral sclerosis and, most notably, Down syndrome (also known as trisomy 21).

REFERENCES

1. Bera, T.K., et al. 2002. POTE, a highly homologous gene family located on numerous chromosomes and expressed in prostate, ovary, testis, placenta, and prostate cancer. Proc. Natl. Acad. Sci. USA 99: 16975-16980.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607549. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Bera, T.K., et al. 2004. Five POTE paralogs and their splice variants are expressed in human prostate and encode proteins of different lengths. Gene 337: 45-53.
4. Bera, T.K., et al. 2006. POTE paralogs are induced and differentially expressed in many cancers. Cancer Res. 66: 52-56.
5. Hahn, Y., et al. 2006. Duplication and extensive remodeling shaped POTE family genes encoding proteins containing ankyrin repeat and coiled coil domains. Gene 366: 238-245.
6. Das, S., et al. 2007. Palmitoylation of POTE family proteins for plasma membrane targeting. Biochem. Biophys. Res. Commun. 363: 751-756.
7. Ise, T., et al. 2008. Expression of POTE protein in human testis detected by novel monoclonal antibodies. Biochem. Biophys. Res. Commun. 365: 603-608.

SOURCE

POTE21 (E-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of POTE21 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-83508 P, (100 µg 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

POTE21 (E-15) is recommended for detection of POTE21, POTE2, POTE14, POTE15, POTE18, A26C1B, ACTBL1 and P704P 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); non cross-reactive with other POTE21 family members.

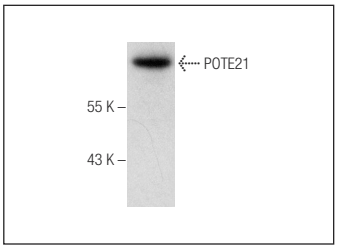
Molecular Weight of POTE21: 66 kDa.

Positive Controls: human prostate extract: sc-363774.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



POTE21 (E-15): sc-83508. Western blot analysis of POTE21 expression in human prostate tissue extract.

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.