epiplakin 1 (C-13): sc-87102



The Power to Question

BACKGROUND

Epiplakin 1, also known as EPPK1 or EPIPL, is a 5,065 amino acid protein that localizes to both the cytoplasm and the cytoskeleton and contains 65 plectin repeats. One of several members of the cytolinker family, epiplakin 1 is expressed at high levels in colon, liver, stomach, intestine and salivary glands and is encoded by a gene which maps to human chromosome 8. Consisting of nearly 146 million base pairs, chromosome 8 encodes over 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that map to chromosome 8.

REFERENCES

- Fujiwara, S., et al. 1996. Identification of a 450-kDa human epidermal autoantigen as a new member of the plectin family. J. Invest. Dermatol. 106: 1125-1130.
- Wildenauer, D.B. and Schwab, S.G. 1999. Chromosomes 8 and 10 workshop. Am. J. Med. Genet. 88: 239-243.
- 3. Kashino, G., et al. 2001. Preferential expression of an intact WRN gene in Werner syndrome cell lines in which a normal chromosome 8 has been introduced. Biochem. Biophys. Res. Commun. 289: 111-115.
- Fujiwara, S., et al. 2001. Epiplakin, a novel member of the Plakin family originally identified as a 450-kDa human epidermal autoantigen. Structure and tissue localization. J. Biol. Chem. 276: 13340-13347.
- 5. Selicorni, A., et al. 2002. Cytogenetic mapping of a novel locus for type II Waardenburg syndrome. Hum. Genet. 110: 64-67.
- Spazierer, D., et al. 2003. Epiplakin gene analysis in mouse reveals a single exon encoding a 725-kDa protein with expression restricted to epithelial tissues. J. Biol. Chem. 278: 31657-31666.
- 7. Takeo, N., et al. 2003. Structure and heterogeneity of the human gene for epiplakin (EPPK1). J. Invest. Dermatol. 121: 1224-1226.
- 8. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607553. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 9. Yoshida, T., et al. 2008. Expression patterns of epiplakin1 in pancreas, pancreatic cancer and regenerating pancreas. Genes Cells 13: 667-678.

CHROMOSOMAL LOCATION

Genetic locus: (human) mapping to 8q24.3.

SOURCE

epiplakin 1 (C-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of epiplakin 1 of human origin.

STORAGE

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

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-87102 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

epiplakin 1 (C-13) is recommended for detection of epiplakin 1 of mouse and human 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).

Suitable for use as control antibody for epiplakin 1 siRNA (h): sc-77799, epiplakin 1 siRNA (m): sc-144910, epiplakin 1 shRNA Plasmid (h): sc-77799-SH, epiplakin 1 shRNA Plasmid (m): sc-144910-SH, epiplakin 1 shRNA (h) Lentiviral Particles: sc-77799-V and epiplakin 1 shRNA (m) Lentiviral Particles: sc-144910-V.

Molecular Weight of epiplakin 1: 552 kDa.

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) 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.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**