SANTA CRUZ BIOTECHNOLOGY, INC.

Enkurin (N-14): sc-163787

BACKGROUND

Enkurin (ENKUR) is a 256 amino acid adapter protein that brings signal transduction proteins and transient receptor potential canonical (TRPC) cation channels into contact. Localizing to the acrosomal crescent and flagellar principal piece of sperm, Enkurin contains one IQ domain which it uses to bind CaM (calmodulin). Enkurin is highly expressed in testis and vomeronasal organ, but is also found at lower levels in brain, ovary, heart and lung. The gene encoding Enkurin maps to human chromosome 10, which contains over 800 genes and 135 million nucleotides. PTEN is an important tumor suppressor gene located on chromosome 10 and, when defective, causes a genetic predisposition to cancer development known as Cowden syndrome. Other chromosome 10 associated disorders include Cockayne syndrome, tetrahydrobiopterin deficiency and trisomy 10.

REFERENCES

1. Troelstra, C., et al. 1992. Localization of the nucleotide excision repair gene ERCC6 to human chromosome 10q11-q21. Genomics 12: 745-749.
2. Sutton, K.A., et al. 2004. Enkurin is a novel calmodulin and TRPC channel binding protein in sperm. Dev. Biol. 274: 426-435.
3. Teresi, R.E., et al. 2007. Cowden syndrome-affected patients with PTEN promoter mutations demonstrate abnormal protein translation. Am. J. Hum. Genet. 81: 756-767.
4. Beech, D.J. 2007. Canonical transient receptor potential 5. Handb Exp Pharmacol. 179: 109-123.
5. Yin, Y. and Shen, W.H. 2008. PTEN: a new guardian of the genome. Oncogene 27: 5443-5453.
6. Online Mendelian Inheritance in Man, OMIM™. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 611025. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
7. Laugel, V., et al. 2010. Mutation update for the CSB/ERCC6 and CSA/ERCC8 genes involved in Cockayne syndrome. Hum. Mutat. 31: 113-126.

CHROMOSOMAL LOCATION

Genetic locus: ENKUR (human) mapping to 10p12.1; Enkur (mouse) mapping to 2 A3.

SOURCE

Enkurin (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Enkurin 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-163787 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Enkurin (N-14) is recommended for detection of Enkurin of mouse, rat 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 Enkurin siRNA (h): sc-90743, Enkurin siRNA (m): sc-144653, Enkurin shRNA Plasmid (h): sc-90743-SH, Enkurin shRNA Plasmid (m): sc-144653-SH, Enkurin shRNA (h) Lentiviral Particles: sc-90743-V and Enkurin shRNA (m) Lentiviral Particles: sc-144653-V.

Molecular Weight of Enkurin: 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.