



HKIB9 (D-13): sc-87765

BACKGROUND

HKIB9 is also known as SPINT3 (serine peptidase inhibitor, Kunitz type, 3) and is an 89 amino acid protein that has one BPTI/Kunitz inhibitor domain, which is known to be able to bind various coagulation factors, leading to the preventing of blood clotting. HKIB9 is thought to be highly expressed in the epididymis based on the location of the HKIB9 gene on human chromosome 20. This chromosome contains several genes encoding for proteins with kunitz-type serine proteinase inhibitor domains that are expressed in the epididymis. Comprising approximately 2% of the human genome, chromosome 20 contains nearly 63 million bases that encode over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome. Additionally, chromosome 20 contains a region with numerous genes which are thought important for seminal production and may be potential targets for male contraception.

REFERENCES

- Chen, H.H., Vicente, C.P., He, L., Tollefsen, D.M. and Wun, T.C. 2005. Fusion proteins comprising Annexin V and Kunitz protease inhibitors are highly potent thrombogenic site-directed anticoagulants. *Blood* 105: 3902-3909.
- Sasaki, S.D., Cotrin, S.S., Carmona, A.K. and Tanaka, A.S. 2006. An unexpected inhibitory activity of Kunitz-type serine proteinase inhibitor derived from *Boophilus microplus* trypsin inhibitor on cathepsin L. *Biochem. Biophys. Res. Commun.* 341: 266-272.
- Ville, D., Kaminska, A., Bahi-Buisson, N., Biraben, A., Plouin, P., Telvi, L., Dulac, O. and Chiron, C. 2006. Early pattern of epilepsy in the ring chromosome 20 syndrome. *Epilepsia* 47: 543-549.
- O'Rand, M.G., Widgren, E.E., Wang, Z. and Richardson, R.T. 2006. Eppin: an effective target for male contraception. *Mol. Cell. Endocrinol.* 250: 157-162.
- Lundwall, A. 2007. A locus on chromosome 20 encompassing genes that are highly expressed in the epididymis. *Asian J. Androl.* 9: 540-544.
- Elghezal, H., Hannachi, H., Mougou, S., Kammoun, H., Triki, C. and Saad, A. 2007. Ring chromosome 20 syndrome without deletions of the subtelomeric and CHRNA4—KCNQ2 genes loci. *Eur. J. Med. Genet.* 50: 441-445.
- O'Rand, M.G., Widgren, E.E., Wang, Z. and Richardson, R.T. 2007. Eppin: an epididymal protease inhibitor and a target for male contraception. *Soc. Reprod. Fertil. Suppl.* 63: 445-453.
- Wang, Z., Widgren, E.E., Richardson, R.T. and Orand, M.G. 2007. Eppin: a molecular strategy for male contraception. *Soc. Reprod. Fertil. Suppl.* 65: 535-542.
- Macedo-Ribeiro, S., Almeida, C., Calisto, B.M., Friedrich, T., Mentele, R., Stürzebecher, J., Fuentes-Prior, P. and Pereira, P.J. 2008. Isolation, cloning and structural characterisation of boophilin, a multifunctional Kunitz-type proteinase inhibitor from the cattle tick. *PLoS ONE* 3: e1624.

STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: SPINT3 (human) mapping to 20q13.12.

SOURCE

HKIB9 (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HKIB9 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-87765 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HKIB9 (D-13) is recommended for detection of HKIB9 of 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); non cross-reactive with isoform 2.

Suitable for use as control antibody for HKIB9 siRNA (h): sc-75263, HKIB9 shRNA Plasmid (h): sc-75263-SH and HKIB9 shRNA (h) Lentiviral Particles: sc-75263-V.

Molecular Weight of HKIB9: 10 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.

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.