SANTA CRUZ BIOTECHNOLOGY, INC.

POGK (D-18): sc-103841



BACKGROUND

POGK (pogo transposable element with KRAB domain), also known as BASS2 or LST003, is a 609 amino acid protein that may be a member of the DNAmediated transposon family. Localizing to the nucleus, POGK contains an N-terminal KRAB (Krüppel-associated box) domain, an HTH CENP-B-type (helix-turnhelix and centromere protein B-type) DNA-binding domain and a C-terminal DDE domain. The KRAB domain is a potent transcriptional repression motif and is approximately 75 amino acids in length. DDE domains are catalytic motifs consisting of two conserved aspartic acids separated by 70 amino acids and a conserved glutamic acid that is further separated by another 35 amino acids. DDE domains are characteristic of DNA transposases and retroviral integrases.

REFERENCES

- Andersson, B., Wentland, M.A., Ricafrente, J.Y., Liu, W. and Gibbs, R.A. 1996. A "double adaptor" method for improved shotgun library construction. Anal. Biochem. 236: 107-113.
- Yu, W., Andersson, B., Worley, K.C., Muzny, D.M., Ding, Y., Liu, W., Ricafrente, J.Y., Wentland, M.A., Lennon, G. and Gibbs, R.A. 1997. Largescale concatenation cDNA sequencing. Genome Res. 7: 353-358.
- 3. Greenhalf, W., Lee, J. and Chaudhuri, B. 1999. A selection system for human apoptosis inhibitors using yeast. Yeast 15: 1307-1321.
- Nagase, T., Kikuno, R., Ishikawa, K., Hirosawa, M. and Ohara, O. 2000. Prediction of the coding sequences of unidentified human genes. XVII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 7: 143-150.
- Sarkar, A., Sim, C., Hong, Y.S., Hogan, J.R., Fraser, M.J., Robertson, H.M. and Collins, F.H. 2003. Molecular evolutionary analysis of the widespread piggyBac transposon family and related "domesticated" sequences. Mol. Genet. Genomics 270: 173-180.
- Rivieccio, V., Mannini, R., Concilio, L., D'Auria, S., Pedone, C. and Grimaldi, G. 2005. Expression, purification and partial characterization of the Krüppel-associated box (KRAB) from the human ZNF2 protein. Protein Pept. Lett. 12: 527-532.
- Buchner, J.M., Robertson, A.E., Poynter, D.J., Denniston, S.S. and Karls, A.C. 2005. Piv site-specific invertase requires a DEDD motif analogous to the catalytic center of the RuvC Holliday junction resolvases. J. Bacteriol. 187: 3431-3437.
- Peng, H., Gibson, L.C., Capili, A.D., Borden, K.L., Osborne, M.J., Harper, S.L., Speicher, D.W., Zhao, K., Marmorstein, R., Rock, T.A. and Rauscher, F.J. 2007. The structurally disordered KRAB repression domain is incorporated into a protease resistant core upon binding to KAP-1-RBCC domain. J. Mol. Biol. 370: 269-289.

STORAGE

Store at 4° C, **D0 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.

CHROMOSOMAL LOCATION

Genetic locus: POGK (human) mapping to 1q24.1; Pogk (mouse) mapping to 1 H2.3.

SOURCE

POGK (D-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of POGK 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-103841 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

POGK (D-18) is recommended for detection of POGK 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 POGK siRNA (h): sc-88850, POGK siRNA (m): sc-106426, POGK shRNA Plasmid (h): sc-88850-SH, POGK shRNA Plasmid (m): sc-106426-SH, POGK shRNA (h) Lentiviral Particles: sc-88850-V and POGK shRNA (m) Lentiviral Particles: sc-106426-V.

Molecular Weight of POGK: 69 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

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) Immunofluo-rescence: 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.