Klkb1 (G-13): sc-241511



The Power to Question

BACKGROUND

KIkb1 (kallikrein 1-related peptidase b1), also known as mGK-1 (glandular kallikrein K1), TK or mK1, is a 261 amino acid glandular kallikreins that belongs to the peptidase S1 family and Kallikrein subfamily. Glandular kallikreins are thought to function in the cleavage of Met-Lys and Arg-Ser bonds in kininogen to release Lys-bradykinin. Human pancreatic/renal KLK encodes for the KLK1 enzyme, which is involved in post-translational processing of polypeptide precursors. The function of the other members of KLK gene family is currently unknown, but evidence suggests that many KLKs are implicated in carcinogenesis. The human KLK gene family consists of 15 serine proteases. The human KLK genes are clustered on chromosome 19q13. The gene encoding KIkb1 maps to mouse chromosome 7 B4.

REFERENCES

- Fahnestock, M., Brundage, S. and Shooter, E.M. 1986. The sequence of a cDNA clone coding for a novel kallikrein from mouse submaxillary gland. Nucleic Acids Res. 14: 4823-4835.
- Evans, B.A., Drinkwater, C.C. and Richards, R.I. 1987. Mouse glandular kallikrein genes. Structure and partial sequence analysis of the kallikrein gene locus. J. Biol. Chem. 262: 8027-8034.
- 3. Yousef, G.M., Chang, A., Scorilas, A. and Diamandis, E.P. 2000. Genomic organization of the human kallikrein gene family on chromosome 19q13.3-q13.4. Biochem. Biophys. Res. Commun. 276: 125-133.
- Diamandis, E.P., Yousef, G.M., Luo, L.Y., Magklara, A. and Obiezu, C.V. 2000. The new human kallikrein gene family: implications in carcinogenesis. Trends Endocrinol. Metab. 11: 54-60.
- Yousef, G.M., Magklara, A., Chang, A., Jung, K., Katsaros, D. and Diamandis, E.P. 2001. Cloning of a new member of the human kallikrein gene family, KLK14, which is down regulated in different malignancies. Cancer Res. 61: 3425-3431.
- Clements, J., Hooper, J., Dong, Y. and Harvey, T. 2001. The expanded human kallikrein (KLK) gene family: genomic organization, tissue-specific expression and potential functions. Biol. Chem. 382: 5-14.
- 7. Yousef, G.M., Scorilas, A., Jung, K., Ashworth, L.K. and Diamandis, E.P. 2001. Molecular cloning of the human kallikrein 15 gene (KLK15). Up-regulation in prostate cancer. J. Biol. Chem. 276: 53-61.

CHROMOSOMAL LOCATION

Genetic locus: Klk1b1 (mouse) mapping to 7 B4.

SOURCE

Klkb1 (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Klkb1 of mouse origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-241511 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KIkb1 (G-13) is recommended for detection of KIkb1 of mouse 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 other KIkb family members.

Suitable for use as control antibody for Klkb1 siRNA (m): sc-146550, Klkb1 shRNA Plasmid (m): sc-146550-SH and Klkb1 shRNA (m) Lentiviral Particles: sc-146550-V.

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.

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**