SANTA CRUZ BIOTECHNOLOGY, INC.

KLF8 (K-23): sc-133713

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Krüppel-type zinc finger transcription factors comprise a conserved family of DNA binding proteins that are important in developmental regulation. The Krüppel zinc finger transcription factor was initially identified in *Drosophila* as a segmentation gene. Krüppel-like factor 8 (KLF8), also called basic Krüppel-like factor 3 and zinc finger protein 741, is a 359 amino acid transcriptional repressor that binds CACCC elements in DNA and activates or represses their target genes in a context-dependent manner. KLF8 is expressed ubiquitously in the nucleus of many cell types and its expression is elevated in several human cancers. KLF8 is post-translationally modified and negatively regulated by sumoylation via SUMO-1, SUMO-2 or SUMO-3. Mutation of the sumoylation site, Lysine 67, to Arginine 67 enhances the ability of KLF8 to repress or activate its target promoters.

REFERENCES

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5. Cox, B.D., Natarajan, M., Stettner, M.R. and Gladson, C.L. 2006. New concepts regarding focal adhesion kinase promotion of cell migration and proliferation. J. Cell. Biochem. 99: 35-52.
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CHROMOSOMAL LOCATION

Genetic locus: KLF8 (human) mapping to Xp11.21.

SOURCE

KLF8 (K-23) is an affinity purified rabbit polyclonal antibody raised against synthetic KLF8 peptide of human origin.

PRODUCT

Each vial contains 50 µg IgG in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

KLF8 (K-23) is recommended for detection of KLF8 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for KLF8 siRNA (h): sc-75390, KLF8 shRNA Plasmid (h): sc-75390-SH and KLF8 shRNA (h) Lentiviral Particles: sc-75390-V.

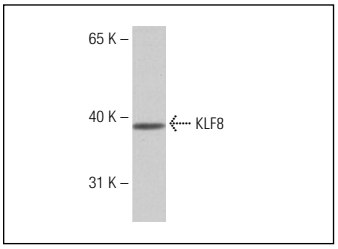
Molecular Weight of KLF8: 39 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



KLF8 (K-23): sc-133713. Western blot analysis of KLF8 expression in Hep G2 whole cell lysate.

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.