

KLF12 (H-50): sc-292219

BACKGROUND

Krüppel-like factors (KLFs) comprise a family of evolutionarily conserved zinc finger-containing transcription factors with diverse regulatory functions in cell growth, proliferation, differentiation and embryogenesis. Individual members of the Sp1-like/KLF family can function either as activators or repressors, depending on which promoter they bind and which co-regulators they interact with. KLF12 (Krüppel-like factor 12), also known as AP2REP or HSPC122, is a 402 amino acid protein that localizes to the nucleus and contains 3 C₂H₂-type zinc fingers. One of several members of the Sp1 C₂H₂-type zinc-finger protein family, KLF12 binds to a regulatory element in the AP-2 α gene promoter and, via this binding, functions as a strong repressor of AP-2 α transcription. Two isoforms of KLF12 exist due to alternative splicing events.

REFERENCES

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2. Roth, C., et al. 2000. Genomic structure and DNA binding properties of the human zinc finger transcriptional repressor AP-2rep (KLF12). *Genomics* 63: 384-390.
3. Zhu, C.H., et al. 2001. Expression of AP-2 α in SV40 immortalized human lung fibroblasts is associated with a distinct pattern of cytosine methylation in the AP-2 α promoter. *Biochim. Biophys. Acta* 1519: 85-91.
4. Rozenblum, E., et al. 2002. A genomic map of a 6-Mb region at 13q21-q22 implicated in cancer development: identification and characterization of candidate genes. *Hum. Genet.* 11: 111-121.
5. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 607531. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Suda, S., et al. 2006. Postnatal expression of KLF12 in the inner medullary collecting ducts of kidney and its trans-activation of UT-A1 urea transporter promoter. *Biochem. Biophys. Res. Commun.* 344: 246-252.
7. Julià, A., et al. 2008. Genome-wide association study of rheumatoid arthritis in the Spanish population: KLF12 as a risk locus for rheumatoid arthritis susceptibility. *Arthritis Rheum.* 58: 2275-2286.

CHROMOSOMAL LOCATION

Genetic locus: KLF12 (human) mapping to 13q21.33; Klf12 (mouse) mapping to 14 E2.3.

SOURCE

KLF12 (H-50) is a rabbit polyclonal antibody raised against amino acids 191-240 mapping within an internal region of KLF12 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

KLF12 (H-50) is recommended for detection of KLF12 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

KLF12 (H-50) is also recommended for detection of KLF12 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for KLF12 siRNA (h): sc-75389, KLF12 siRNA (m): sc-146496, KLF12 shRNA Plasmid (h): sc-75389-SH, KLF12 shRNA Plasmid (m): sc-146496-SH, KLF12 shRNA (h) Lentiviral Particles: sc-75389-V and KLF12 shRNA (m) Lentiviral Particles: sc-146496-V.

KLF12 (H-50) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of (predicted) KLF12: 44 kDa.

Molecular Weight of (observed) KLF12: 50/65 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.