# FOXK2 (V-20): sc-103505



## **BACKGROUND**

The forkhead-box (FOX) genes comprise a superfamily of at least 43 members that encode proteins which are involved in transcriptional regulation and may be associated with the pathogenesis of various cancers. FOXK2 (forkhead box K2), also known as ILF or ILF1, is a 660 amino acid protein that localizes to the nucleus and contains one FHA domain and one forkhead DNA-binding domain. Expressed in lymphoid and non-lymphoid cells, FOXK2 uses magnesium as a cofactor and binds to purine-rich motifs in select promoters, possibly playing a role in the regulation of viral and cellular promoter elements. FOXK2 exists as multiple alternatively spliced isoforms and is subject to DNA damage-dependent phosphorylation, probably by Atm or ATR.

## **REFERENCES**

- 1. Durand, D.B., Shaw, J.P., Bush, M.R., Replogle, R.E., Belagaje, R. and Crabtree, G.R. 1988. Characterization of antigen receptor response elements within the interleukin-2 enhancer. Mol. Cell. Biol. 8: 1715-1724.
- Li, C., Lai, C.F., Sigman, D.S. and Gaynor, R.B. 1991. Cloning of a cellular factor, interleukin binding factor, that binds to NFAT-like motifs in the human immunodeficiency virus long terminal repeat. Proc. Natl. Acad. Sci. USA 88: 7739-7743.
- Li, C., Lusis, A.J., Sparkes, R., Nirula, A. and Gaynor, R. 1992. Characterization and chromosomal mapping of the gene encoding the cellular DNA binding protein ILF. Genomics 13: 665-671.
- 4. Nirula, A., Moore, D.J. and Gaynor, R.B. 1997. Constitutive binding of the transcription factor interleukin-2 (IL-2) enhancer binding factor to the IL-2 promoter. J. Biol. Chem. 272: 7736-7745.
- 5. Liu, P.P., Chen, Y.C., Li, C., Hsieh, Y.H., Chen, S.W., Chen, S.H., Jeng, W.Y. and Chuang, W.J. 2002. Solution structure of the DNA-binding domain of interleukin enhancer binding factor 1 (FOXK1a). Proteins 49: 543-553.
- Katoh, M. and Katoh, M. 2004. Human FOX gene family (Review). Int. J. Oncol. 25: 1495-1500.
- Tsai, K.L., Huang, C.Y., Chang, C.H., Sun, Y.J., Chuang, W.J. and Hsiao, C.D. 2006. Crystal structure of the human FOXK1a-DNA complex and its implications on the diverse binding specificity of winged helix/forkhead proteins. J. Biol. Chem. 281: 17400-17409.

## CHROMOSOMAL LOCATION

Genetic locus: FOXK2 (human) mapping to 17q25.3; Foxk2 (mouse) mapping to 11 E2.

#### **SOURCE**

FOXK2 (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FOXK2 of human origin.

## **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103505 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

FOXK2 (V-20) is recommended for detection of FOXK2 of mouse, rat and 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)], 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 FOX family members.

FOXK2 (V-20) is also recommended for detection of FOXK2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FOXK2 siRNA (h): sc-94054, FOXK2 siRNA (m): sc-105371, FOXK2 shRNA Plasmid (h): sc-94054-SH, FOXK2 shRNA Plasmid (m): sc-105371-SH, FOXK2 shRNA (h) Lentiviral Particles: sc-94054-V and FOXK2 shRNA (m) Lentiviral Particles: sc-105371-V.

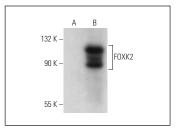
Molecular Weight of FOXK2: 69 kDa.

Positive Controls: FOXK2 (m): 293 Lysate: sc-178634 or Hep G2 cell lysate: sc-2227.

## **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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

#### DATA



FOXK2 (V-20): sc-103505. Western blot analysis of FOXK2 expression in non-transfected: sc-110760 (A) and mouse FOXK2 transfected: sc-178634 (B) 293 whole cell lysates

#### **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

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