

Goat Anti-FOXK2 / ILF (isoform 1) Antibody
Peptide-affinity purified goat antibody
Catalog # AF1431a**Specification**

Goat Anti-FOXK2 / ILF (isoform 1) Antibody - Product Information

Application	WB
Primary Accession	Q01167
Other Accession	NP_004505 , 3607
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	69062

Goat Anti-FOXK2 / ILF (isoform 1) Antibody - Additional Information**Gene ID** 3607**Other Names**

Forkhead box protein K2, Cellular transcription factor ILF-1, FOXK1, Interleukin enhancer-binding factor 1, FOXK2, ILF, ILF1

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-FOXK2 / ILF (isoform 1) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-FOXK2 / ILF (isoform 1) Antibody - Protein Information**Name** FOXK2**Function**

Transcriptional regulator involved in different processes such as glucose metabolism, aerobic glycolysis and autophagy (By similarity). Recognizes and binds the forkhead DNA sequence motif (5'- GTAAACA-3') and can both act as a transcription activator or repressor, depending on the context (PubMed:22083952, PubMed:25451922). Together with FOXK1, acts as a key regulator of metabolic

reprogramming towards aerobic glycolysis, a process in which glucose is converted to lactate in the presence of oxygen (By similarity). Acts by promoting expression of enzymes for glycolysis (such as hexokinase-2 (HK2), phosphofructokinase, pyruvate kinase (PKLR) and lactate dehydrogenase), while suppressing further oxidation of pyruvate in the mitochondria by up-regulating pyruvate dehydrogenase kinases PDK1 and PDK4 (By similarity). Probably plays a role in gluconeogenesis during overnight fasting, when lactate from white adipose tissue and muscle is the main substrate (By similarity). Together with FOXK1, acts as a negative regulator of autophagy in skeletal muscle: in response to starvation, enters the nucleus, binds the promoters of autophagy genes and represses their expression, preventing proteolysis of skeletal muscle proteins (By similarity). In addition to the 5'-GTAAACA-3' DNA motif, also binds the 5'-TGANTCA-3' palindromic DNA motif, and co-associates with JUN/AP-1 to activate transcription (PubMed:22083952). Also able to bind to a minimal DNA heteroduplex containing a G/T-mismatch with 5'- TRT[G/T]NB-3' sequence (PubMed:20097901). Binds to NFAT-like motifs (purine-rich) in the IL2 promoter (PubMed:1339390). Positively regulates WNT/beta-catenin signaling by translocating DVL proteins into the nucleus (PubMed:25805136). Also binds to HIV-1 long terminal repeat. May be involved in both positive and negative regulation of important viral and cellular promoter elements (PubMed:1909027).

Cellular Location

Nucleus. Cytoplasm {ECO:0000250|UniProtKB:Q3UCQ1}

Tissue Location

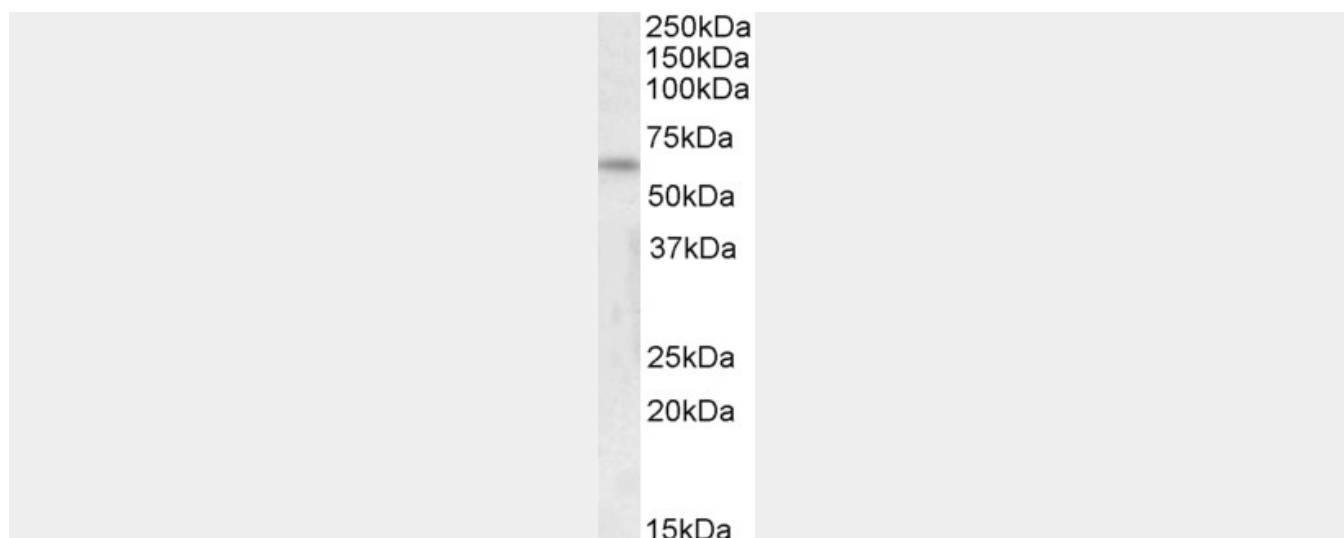
Expressed in both lymphoid and non-lymphoid cells.

Goat Anti-FOXK2 / ILF (isoform 1) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-FOXK2 / ILF (isoform 1) Antibody - Images



AF1431a (0.3 µg/ml) staining of Human Thymus lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-FOXK2 / ILF (isoform 1) Antibody - Background

The protein encoded by this gene contains a fork head DNA binding domain. This protein can bind to the purine-rich motifs of the HIV long terminal repeat (LTR), and to the similar purine-rich motif in the interleukin 2 (IL2) promoter. It may be involved in the regulation of viral and cellular promoter elements.

Goat Anti-FOXK2 / ILF (isoform 1) Antibody - References

Defining the human deubiquitinating enzyme interaction landscape. Sowa ME, et al. Cell, 2009 Jul 23. PMID 19615732.

A probability-based approach for high-throughput protein phosphorylation analysis and site localization. Beausoleil SA, et al. Nat Biotechnol, 2006 Oct. PMID 16964243.

DNA sequence of human chromosome 17 and analysis of rearrangement in the human lineage. Zody MC, et al. Nature, 2006 Apr 20. PMID 16625196.

Crystal structure of the human FOXK1a-DNA complex and its implications on the diverse binding specificity of winged helix/forkhead proteins. Tsai KL, et al. J Biol Chem, 2006 Jun 23. PMID 16624804.

Complete sequencing and characterization of 21,243 full-length human cDNAs. Ota T, et al. Nat Genet, 2004 Jan. PMID 14702039.