

FOXK2 antibody - C-terminal region

Rabbit Polyclonal Antibody Catalog # Al16241

Specification

FOXK2 antibody - C-terminal region - Product Information

Application WB
Primary Accession 001167

Other Accession NM 004514, NP 004505

Reactivity

Human, Mouse, Rat, Rabbit, Horse
Predicted

Human, Mouse, Rat, Rabbit, Horse

Host Rabbit
Clonality Polyclonal
Calculated MW 69kDa KDa

FOXK2 antibody - C-terminal region - Additional Information

Gene ID 3607

Alias Symbol ILF, ILF1, ILF-1

Other Names

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

Format

Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage

Add 100 ul of distilled water. Final anti-FOXK2 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

Precautions

FOXK2 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

FOXK2 antibody - C-terminal region - 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

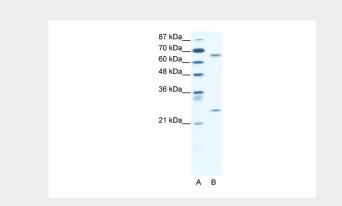
Expressed in both lymphoid and non-lymphoid cells.

FOXK2 antibody - C-terminal region - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

FOXK2 antibody - C-terminal region - Images



WB Suggested Anti-FOXK2 Antibody Titration: 2.5µg/ml

ELISA Titer: 1:62500



Positive Control: Jurkat cell lysate

FOXK2 antibody - C-terminal region - Background

Recognizes the core sequence 5'-TAAACA-3'. Binds to NFAT-like motifs (purine-rich) in the IL2 promoter. Also binds to HIV-1 long terminal repeat. May be involved in both positive and negative regulation of important viral and cellular promoter elements.

FOXK2 antibody - C-terminal region - References

Li C.,et al.Proc. Natl. Acad. Sci. U.S.A. 88:7739-7743(1991). Li C.,et al.Genomics 13:665-671(1992). Nirula A.,et al.Submitted (MAY-1996) to the EMBL/GenBank/DDBJ databases. Zody M.C.,et al.Nature 440:1045-1049(2006). Matsuoka S.,et al.Science 316:1160-1166(2007).