

FKHR (A-6): sc-514610

BACKGROUND

FKHR (for forkhead in rhabdomyosarcoma) and FKHL1 are members of the forkhead family of transcription factors. Transcriptional activation of FKHR proteins is regulated by the serine/threonine kinase Akt1, which phosphorylates FKHL1 and results in FKHL1 associating with 14-3-3 proteins and being retained in the cytoplasm. Induction of apoptosis or withdrawal of growth factors stimulates dephosphorylation and nuclear translocation of FKHR proteins, leading to FKHR-induced gene-specific transcriptional activation. FKHR, also designated forkhead box protein O1A (FOXO1), is a ubiquitously expressed protein that shuttles between the cytoplasm and nucleus. Genetic mutations in FKHR genes, including the t(2;13) and t(1;3) translocations, are commonly found in alveolar rhabdomyosarcomas. These translocations result in the fusion of the amino terminus of Pax-3 or Pax-7, including the paired box and homeodomain DNA-binding domains, with the carboxy-terminus of FKHR, which contains a transcriptional activation domain. The Pax-3/FKHR fusion protein appears to function as an oncogenic transcription factor that enhances the activation of normal Pax-3 target genes.

CHROMOSOMAL LOCATION

Genetic locus: FOXO1 (human) mapping to 13q14.11; Foxo1 (mouse) mapping to 3 C.

SOURCE

FKHR (A-6) is a mouse monoclonal antibody raised against amino acids 471-600 mapping near the C-terminus of FKHR of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-514610 X, 200 µg/0.1 ml.

APPLICATIONS

FKHR (A-6) is recommended for detection of FKHR of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for FKHR siRNA (h): sc-35382, FKHL1 siRNA (m): sc-37888, FKHR siRNA (r): sc-270624, FKHR shRNA Plasmid (h): sc-35382-SH, FKHL1 shRNA Plasmid (m): sc-37888-SH, FKHR shRNA Plasmid (r): sc-270624-SH, FKHR shRNA (h) Lentiviral Particles: sc-35382-V, FKHL1 shRNA (m) Lentiviral Particles: sc-37888-V and FKHR shRNA (r) Lentiviral Particles: sc-270624-V.

FKHR (A-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

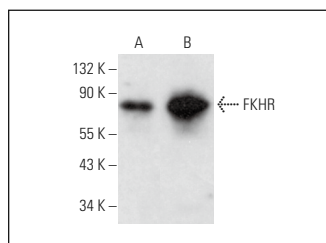
Molecular Weight of FKHR: 80 kDa.

Positive Controls: Daudi cell lysate: sc-2415, A-431 whole cell lysate: sc-2201 or HeLa whole cell lysate: sc-2200.

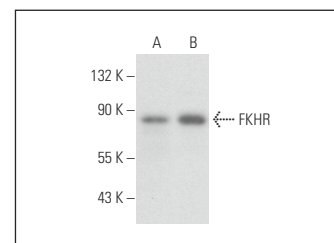
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



FKHR (A-6): sc-514610. Western blot analysis of FKHR expression in HeLa (A) and Daudi (B) whole cell lysates.



FKHR (A-6): sc-514610. Western blot analysis of FKHR expression in A-431 (A) and HeLa (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Wu, Z., et al. 2018. EGFR-associated pathways involved in traditional Chinese medicine (TCM)-1-induced cell growth inhibition, autophagy and apoptosis in prostate cancer. Mol. Med. Rep. 17: 7875-7885.

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 for detailed protocols and support products.



See **FKHR (C-9): sc-374427** for FKHR antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.