

FKHRL1 (S-20): sc-9812

BACKGROUND

FKHRL1 (forkhead in rhabdomyosarcoma-like 1), also known as FOXO3 (forkhead box O3) or FOXO3A, is a 673 amino acid transcriptional activator that belongs to the FKHR subfamily of forkhead transcription factors. Transcriptional activation of FKHR proteins is regulated by the serine/threonine kinase Akt1, which phosphorylates FKHRL1 at Threonine 32 and Serine 253. Phosphorylation by Akt1 negatively regulates FKHRL1 by promoting its export from the nucleus. Phosphorylated FKHRL1 associates with 14-3-3 proteins and this complex is retained in the cytoplasm. Growth factor withdrawal stimulates FKHRL1 dephosphorylation and nuclear translocation, leading to FKHR-induced gene-specific transcriptional activation. Within the nucleus, dephosphorylated FKHRL1 triggers apoptosis by inducing the expression of genes that are critical for cell death.

CHROMOSOMAL LOCATION

Genetic locus: FOXO3 (human) mapping to 6q21.

SOURCE

FKHRL1 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FKHRL1 of human origin.

PRODUCT

Each vial contains 200 µg IgG 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-9812 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-9812 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

FKHRL1 (S-20) is recommended for detection of FKHRL1 of 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). FKHRL1 (S-20) is also recommended for detection of FKHRL1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FKHRL1 siRNA (h): sc-37887, FKHRL1 shRNA Plasmid (h): sc-37887-SH and FKHRL1 shRNA (h) Lentiviral Particles: sc-37887-V.

FKHRL1 (S-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of FKHRL1: 71 kDa.

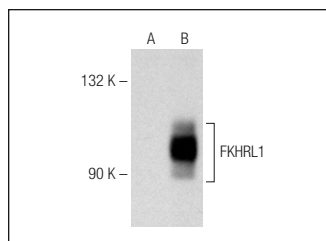
Molecular Weight (observed) of FKHRL1: 87-99 kDa.

Positive Controls: TE671 cell lysate: sc-2416 or HeLa nuclear extract: sc-2120.

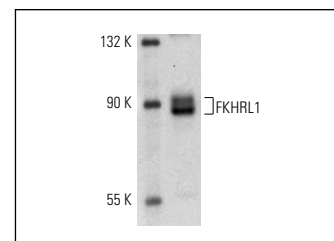
RECOMMENDED SECONDARY REAGENTS

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



FKHRL1 (S-20): sc-9812. Western blot analysis of FKHRL1 expression in non-transfected: sc-117752 (A) and mouse FKHRL1 transfected: sc-178617 (B) 293T whole cell lysates.



FKHRL1 (S-20): sc-9812. Western blot analysis of FKHRL1 expression in TE671 whole cell lysate.

SELECT PRODUCT CITATIONS

- Miyamoto, N., et al. 2011. Quercetin induces the expression of peroxiredoxins 3 and 5 via the Nrf2/NRF1 transcription pathway. *Invest. Ophthalmol. Vis. Sci.* 52: 1055-1063.
- Ji, F., et al. 2012. BAFF induces spleen CD4⁺ T cell proliferation by down-regulating phosphorylation of FOXO3A and activates cyclin D2 and D3 expression. *Biochem. Biophys. Res. Commun.* 425: 854-858.

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.



Try **FKHRL1 (D-12): sc-48348**, our highly recommended monoclonal alternative to FKHRL1 (S-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **FKHRL1 (D-12): sc-48348**.