

FoxO1 Polyclonal Antibody

Catalog No: YT1758

Reactivity: Human; Mouse; Rat

Applications: WB;IHC;IF;ELISA

Target: FoxO1

Fields: >>FoxO signaling pathway;>>AMPK signaling pathway;>>Longevity regulating

pathway;>>Longevity regulating pathway - multiple species;>>Cellular senescence;>>Insulin signaling pathway;>>Thyroid hormone signaling pathway;>>Glucagon signaling pathway;>>Insulin resistance;>>AGE-RAGE

signaling pathway in diabetic complications;>>Alcoholic liver

disease;>>Shigellosis;>>Human papillomavirus infection;>>Pathways in cancer;>>Transcriptional misregulation in cancer;>>Prostate cancer

Gene Name: FOXO1

Protein Name: Forkhead box protein O1

Q12778

Q9R1E0

Human Gene Id: 2308

Human Swiss Prot

No:

Mouse Gene Id: 56458

Mouse Swiss Prot

No:

Rat Gene ld: 84482

Rat Swiss Prot No: G3V7R4

Immunogen: The antiserum was produced against synthesized peptide derived from human

FKHR. AA range:223-272

Specificity: FoxO1 Polyclonal Antibody detects endogenous levels of FoxO1 protein.

Formulation: Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

1/4



Source: Polyclonal, Rabbit, IgG

Dilution: WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:20000. Not

yet tested in other applications.

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

-15°C to -25°C/1 year(Do not lower than -25°C) **Storage Stability:**

78kD **Observed Band:**

Insulin Receptor; B Cell Receptor; Protein Acetylation **Cell Pathway:**

Background: This gene belongs to the forkhead family of transcription factors which are

> characterized by a distinct forkhead domain. The specific function of this gene has not yet been determined; however, it may play a role in myogenic growth and differentiation. Translocation of this gene with PAX3 has been associated with

alveolar rhabdomyosarcoma, [provided by RefSeq. Jul 2008].

disease: Chromosomal aberrations involving FOXO1 are a cause of **Function:**

rhabdomyosarcoma 2 (RMS2) [MIM:268220]; also known as alveolar rhabdomyosarcoma. Translocation (2;13)(q35;q14) with PAX3; translocation

t(1;13)(p36;q14) with PAX7. The resulting protein is a transcriptional

activator..function:Transcription factor..PTM:Phosphorylated by AKT1; insulininduced (By similarity). IGF1 rapidly induces phosphorylation of Ser-256, Thr-24, and Ser-319. Phosphorylation of Ser-256 decreases DNA-binding activity and promotes the phosphorylation of Thr-24, and Ser-319, permitting phosphorylation of Ser-322 and Ser-325, probably by CK1, leading to nuclear exclusion and loss of function. Phosphorylation of Ser-329 is independent of IGF1 and leads to reduced function. Phosphorylated upon DNA damage, probably by ATM or ATR., similarity: Contains 1 fork-head DNA-binding domain., subcellular

location:Shuttles betw

Subcellular Location:

Cytoplasm . Nucleus . Shuttles between the cytoplasm and nucleus. Largely nuclear in unstimulated cells (PubMed:11311120, PubMed:12228231,

PubMed:19221179, PubMed:21245099, PubMed:20543840,

PubMed:25009184). In osteoblasts, colocalizes with ATF4 and RUNX2 in the nucleus (By similarity). Serum deprivation increases localization to the nucleus. leading to activate expression of SOX9 and subsequent chondrogenesis (By similarity). Insulin-induced phosphorylation at Ser-256 by PKB/AKT1 leads, via stimulation of Thr-24 phosphorylation, to binding of 14-3-3 proteins and nuclear export to the cytoplasm where it is degraded by the ubiquitin-proteosomal pathway (PubMed:11237865, PubMed:12228231). Phosphorylation at Ser-249 by CDK1 disrupts binding of 14-3-3 proteins and promotes nuclear accumulation Expression: Ubiquitous.

Tag: orthogonal,hot

Sort: 1

No4: 1

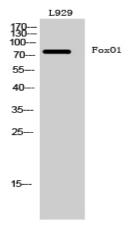
Host: Rabbit

Modifications: Unmodified

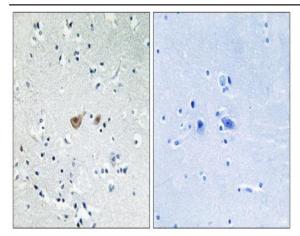
Products Images



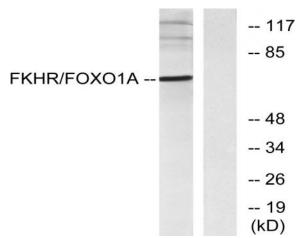
Immunofluorescence analysis of Hela cell. 1,FoxO1 Polyclonal Antibody(red) was diluted at 1:200(4° overnight). CK7 Monoclonal Antibody(12D7)(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog:RS3611 was diluted at 1:1000(room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog:RS3208 was diluted at 1:1000(room temperature, 50min).



Western Blot analysis of L929 cells using FoxO1 Polyclonal Antibody diluted at 1:1000



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using FKHR Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from HeLa cells, treated with EGF+Serum, using FKHR Antibody. The lane on the right is blocked with the synthesized peptide.