

## FoxO1 (phospho Ser319) Polyclonal Antibody

Catalog No: YP0114

**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 ld: 2308

**Human Swiss Prot** 

No:

Mouse Gene Id: 56458

**Mouse Swiss Prot** 

No:

Rat Gene Id: 84482

Rat Swiss Prot No: G3V7R4

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

FKHR around the phosphorylation site of Ser319. AA range:286-335

**Specificity:** Phospho-FoxO1 (S319) Polyclonal Antibody detects endogenous levels of

FoxO1 protein only when phosphorylated at S319.

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



**Sormdation:** Polyclonal, Rabbit, IgG

**Dilution :** WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:10000.. IF 1:50-200

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

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

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

Observed Band: 82kD

**Cell Pathway:** Insulin Receptor; B Cell Receptor; Protein\_Acetylation

**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],

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

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,

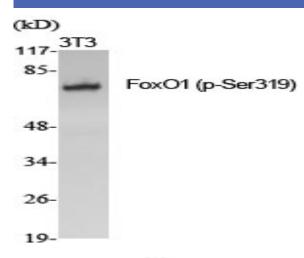
PubMed:19221179, PubMed:21245099, PubMed:20543840,

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

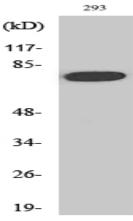


**Expression**: Ubiquitous.

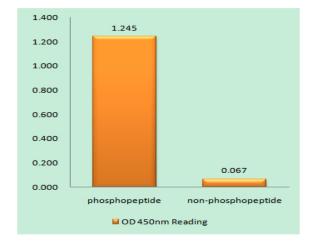
## **Products Images**



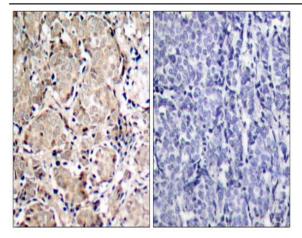
Western Blot analysis of various cells using Phospho-FoxO1 (S319) Polyclonal Antibody



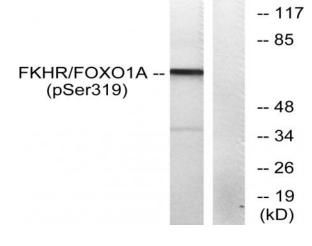
Western Blot analysis of 293 cells using Phospho-FoxO1 (S319) Polyclonal Antibody



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using FKHR (Phospho-Ser319) Antibody



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using FKHR (Phospho-Ser319) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from HeLa cells treated with EGF, using FKHR (Phospho-Ser319) Antibody. The lane on the right is blocked with the phospho peptide.