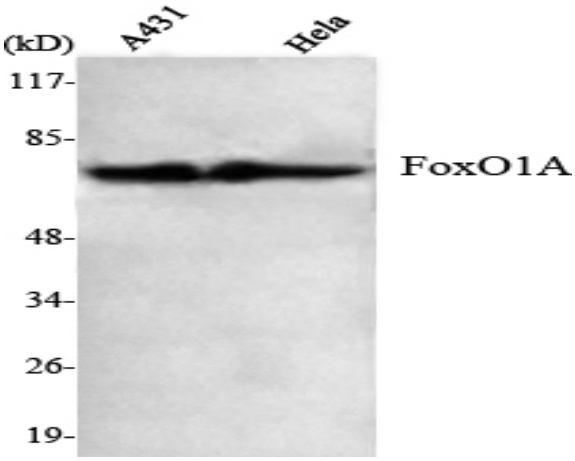
Best Tools for immunology Research

FoxO1A Monoclonal Antibody

Catalog No :	YM1036
Reactivity :	Human;Mouse
Applications :	WB;IF
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
Human Gene Id :	2308
Human Swiss Prot No :	Q12778
Mouse Gene Id :	56458
Mouse Swiss Prot No :	Q9R1E0
Immunogen :	Purified recombinant human FoxO1A (C-terminus) protein fragments expressed in E.coli.
Specificity :	FoxO1A Monoclonal Antibody detects endogenous levels of FoxO1A protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Monoclonal, Mouse
Dilution :	WB 1:1000 - 1:2000. IF 1:100 - 1:500. Not yet tested in other applications.

Purification :	Affinity purification
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Molecularweight :	70kD
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; insulin-induced (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 using FoxO1A Monoclonal Antibody against A431, HeLa cell lysate .