



FoxO1A (Acetyl Lys245) mouse mAb

Catalog No	BYmab-00881
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	FOXO1 FKHR FOXO1A
Protein Name	FoxO1A (Acetyl Lys245)
Immunogen	Synthesized peptide derived from human FoxO1A (Acetyl Lys245)
Specificity	This antibody detects endogenous levels of Human,Mouse,Rat FoxO1A (Acetyl Lys245)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	Forkhead box protein O1 (Forkhead box protein O1A;Forkhead in rhabdomyosarcoma)
Observed Band	72kD
Cell Pathway	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
Tissue Specificity	Ubiquitous.
Function	blood vessel development, vasculature development, transcription, regulation of transcription, DNA-dependent,regulation of transcription from RNA polymerase II

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promoter, anti-apoptosis, cell surface receptor linked signal transduction, enzyme linked receptor protein signaling pathway, transmembrane receptor protein tyrosine kinase signaling pathway, insulin receptor signaling pathway, response to endogenous stimulus, response to hormone stimulus, positive regulation of biosynthetic process, response to organic substance, positive regulation of macromolecule biosynthetic process, positive regulation of macromolecule metabolic process, positive regulation of gene expression, regulation of cell death, positive regulation of cellular biosynthetic process, response to insulin stimulus, cellular response to insulin stimulus, cellular response to hormone stimulus, regulation of cell proliferati

Background

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 between cytoplasm and nucleus.,subunit:Interacts with LRPPRC.,tissue specificity:Ubiquitous.,

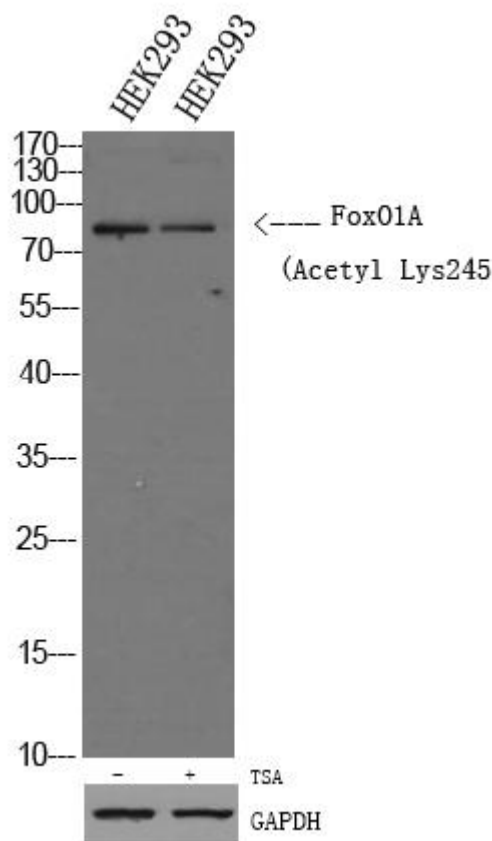
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis of various cells using FoxO1A (Acetyl Lys245) mouse mAb

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