[KD Validated] Anti-FOXO3 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R021483

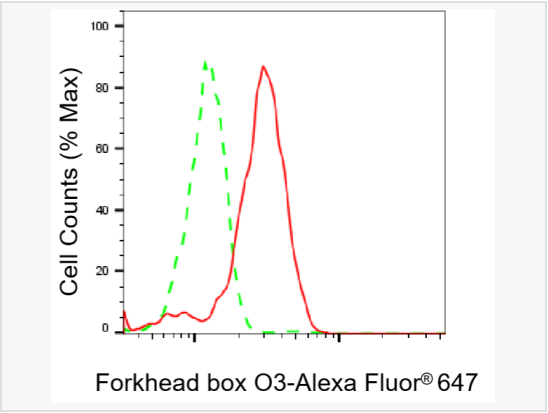
Product Information

Application	WB, FC, IF (Cell)/ICC
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000
Host	Rabbit
Clonality	Monoclonal
Clone No.	90G89O89
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human FoxO3a
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KD Validated] Anti-FOXO3 Rabbit mAb [90G89O89] is for research use only and not for use in diagnostic or therapeutic procedures.

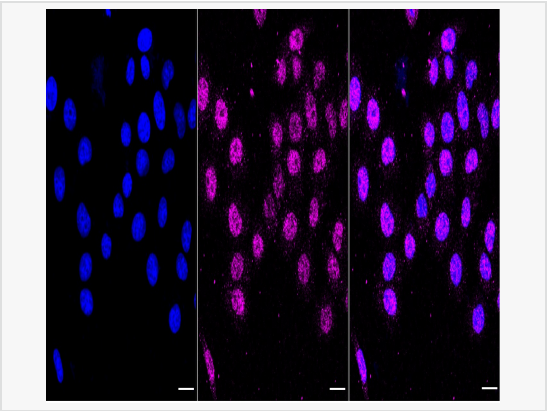
Protein Information

Synonyms	FOXO3; Forkhead Box O3; AF6q21; FKHRL1; FOXO3A; FOXO2; Forkhead In Rhabdomyosarcoma-Like 1; Forkhead Box Protein O3; Forkhead, Drosophila, Homolog Of, In Rhabdomyosarcoma-Like 1; Forkhead Homolog (Rhabdomyosarcoma) Like 1; Forkhead Box O3A; AF6q21 Protein; FKHRL1P2; FOXO3A-.
Calculated MW	Calculated MW: 71 kDa, Observed MW: 82 kDa
Uniprot ID	O43524
Gene ID	2309
Background	This gene belongs to the forkhead family of transcription factors which are characterized by a distinct forkhead domain. This gene likely functions as a trigger for apoptosis through expression of genes necessary for cell death. Translocation of this gene with the MLL gene is associated with secondary acute leukemia. Alternatively spliced transcript variants encoding the same protein have been observed. [provided by RefSeq, Jul 2008]
Cellular Location	Cytoplasm Cytosol Nucleus Mitochondrion matrix Mitochondrion outer membrane Peripheral membrane protein Cytoplasmic side Retention in the cytoplasm contributes to its inactivation (PubMed:10102273, PubMed:15084260, PubMed:16751106). Translocates to the nucleus upon oxidative stress and in the absence of survival factors (PubMed:10102273, PubMed:16751106). Translocates from the cytosol to the nucleus following dephosphorylation in response to autophagy-inducing stimuli (By similarity). Translocates in a AMPK-dependent manner into the mitochondrion in response to metabolic stress (PubMed:23283301, PubMed:29445193). Serum deprivation increases localization to the nucleus, leading to activate expression of SOX9 and subsequent chondrogenesis (By similarity).

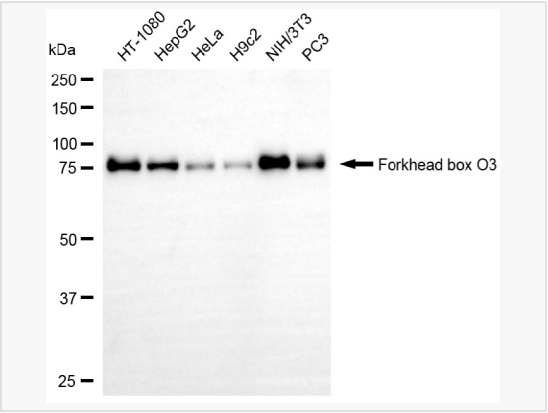
Validation Images



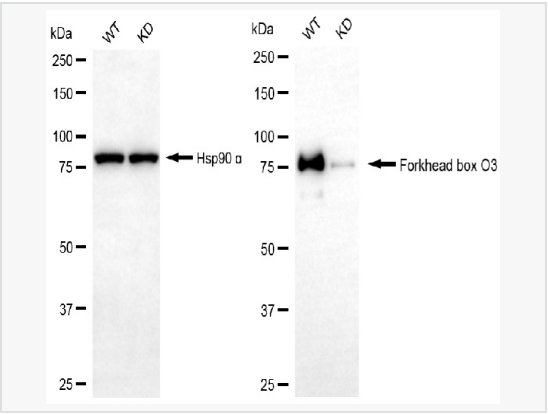
Flow cytometric analysis of Forkhead box O3 expression in HepG2 cells using Forkhead box O3 antibody (R021483, 1:2,000). Green, isotype control; red, Forkhead box O3.



Immunocytochemical staining of HepG2 cells with Forkhead box O3 antibody (R021483, 1:1,000). Nuclei were stained blue with DAPI; Forkhead box O3 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Western blotting analysis using forkhead box O3 antibody (R021483). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with forkhead box O3 antibody (R021483, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using forkhead box O3 antibody (R021483). Forkhead box O3 expression in wild-type (WT) and forkhead box O3 (FOXO3) knockdown (KD) HSHC cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with forkhead box O3 antibody (R021483, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.