

ARG63569 anti-FOXO3A antibody

Package: 100 µg
Store at: -20°C

Summary

Product Description	Goat Polyclonal antibody recognizes FOXO3A
Tested Reactivity	Hu
Predict Reactivity	Ms, Rat, Cow, Dog, Pig
Tested Application	IHC-P, WB
Specificity	Both variants represent identical protein (NP_001446.1 and NP_963853.1).
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Target Name	FOXO3A
Species	Human
Immunogen	C-GAKQASSQSWVPG
Conjugation	Un-conjugated
Alternate Names	FKHRL1; AF6q21; AF6q21 protein; Forkhead box protein O3; Forkhead in rhabdomyosarcoma-like 1; FOXO2; FOXO3A; FKHRL1P2

Application Instructions

Application table	Application	Dilution
	IHC-P	Assay - dependent
	WB	0.1 - 1 µg/ml
Application Note	WB: Recommend incubate at RT for 1h. IHC-P: Antigen Retrieval: Steam tissue section in Citrate buffer (pH 6.0). * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification	Purified from goat serum by antigen affinity chromatography.
Buffer	Tris saline (pH 7.3), 0.02% Sodium azide and 0.5% BSA.
Preservative	0.02% Sodium azide
Stabilizer	0.5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated

freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note

For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links

[GeneID: 2309 Human](#)

[Swiss-port # O43524 Human](#)

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]

Research Area

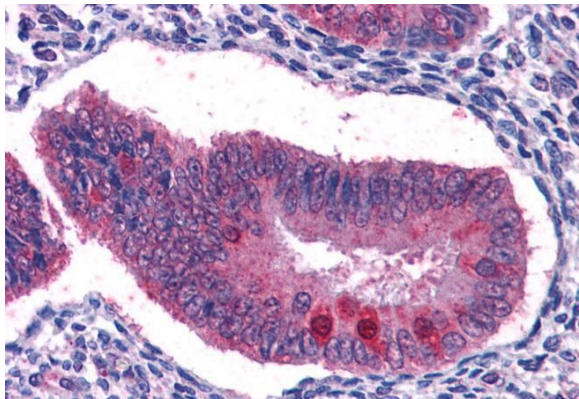
Gene Regulation antibody

Calculated Mw

71 kDa

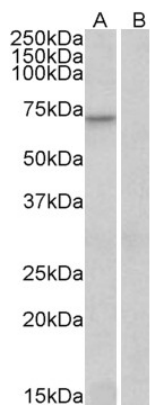
PTM

In the presence of survival factors such as IGF-1, phosphorylated on Thr-32 and Ser-253 by AKT1/PKB. This phosphorylated form then interacts with 14-3-3 proteins and is retained in the cytoplasm. Survival factor withdrawal induces dephosphorylation and promotes translocation to the nucleus where the dephosphorylated protein induces transcription of target genes and triggers apoptosis. Although AKT1/PKB doesn't appear to phosphorylate Ser-315 directly, it may activate other kinases that trigger phosphorylation at this residue. Phosphorylated by STK4/MST1 on Ser-209 upon oxidative stress, which leads to dissociation from YWHAB/14-3-3-beta and nuclear translocation. Phosphorylated by PIM1. Phosphorylation by AMPK leads to the activation of transcriptional activity without affecting subcellular localization. Phosphorylation by MAPKAPK5 promotes nuclear localization and DNA-binding, leading to induction of miR-34b and miR-34c expression, 2 post-transcriptional regulators of MYC that bind to the 3'UTR of MYC transcript and prevent its translation (PubMed:10102273, PubMed:11154281, PubMed:16751106, PubMed:17711846, PubMed:18593906, PubMed:21329882). Phosphorylated by CHUK/IKKA and IKBKB/IKKB. TNF-induced inactivation of FOXO3 requires its phosphorylation at Ser-644 by IKBKB/IKKB which promotes FOXO3 retention in the cytoplasm, polyubiquitination and ubiquitin-mediated proteasomal degradation (PubMed:15084260). May be dephosphorylated by calcineurin A on Ser-299 which abolishes FOXO3 transcriptional activity (By similarity). Deacetylation by SIRT1 or SIRT2 stimulates interaction of FOXO3 with SKP2 and facilitates SCF(SK2)-mediated FOXO3 ubiquitination and proteasomal degradation (PubMed:21841822). Deacetylation by SIRT2 stimulates FOXO3-mediated transcriptional activity in response to oxidative stress (By similarity). Heavily methylated by SET9 which decreases stability, while moderately increasing transcriptional activity. The main methylation site is Lys-271. Methylation doesn't affect subcellular location. Polyubiquitinated. Ubiquitinated by a SCF complex containing SKP2, leading to proteasomal degradation.



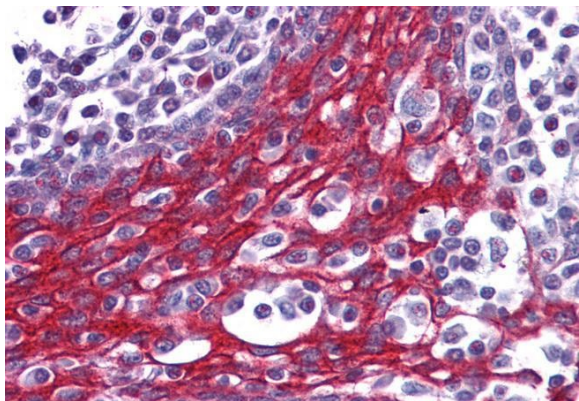
ARG63569 anti-FOXO3A antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human uterus tissue. Antigen Retrieval: Steam tissue section in Citrate buffer (pH 6.0). The tissue section was stained with ARG63569 anti-FOXO3A antibody at 2.5 µg/ml dilution followed by AP-staining.



ARG63569 anti-FOXO3A antibody WB image

Western blot: 35 µg of Human heart lysate (in RIPA buffer) with (B) and without (A) blocking peptide. The blots were stained with ARG63569 anti-FOXO3A antibody at 0.3 µg/ml dilution and incubated at RT for 1 hour.



ARG63569 anti-FOXO3A antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human tonsil tissue. Antigen Retrieval: Steam tissue section in Citrate buffer (pH 6.0). The tissue section was stained with ARG63569 anti-FOXO3A antibody at 2.5 µg/ml dilution followed by AP-staining.