

## DESCRIPTION

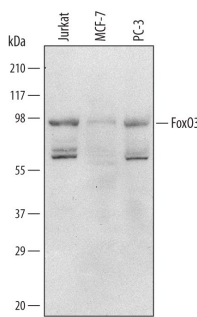
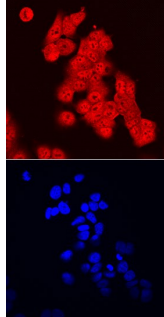
<b>Species Reactivity</b>	Human/Mouse
<b>Specificity</b>	Detects human and mouse FoxO3 in Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human FoxO3 Met372-Gly673 Accession # O43524
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below

## DATA

<p><b>Western Blot</b></p> 	<p><b>Detection of Human FoxO3 by Western Blot.</b> Western blot shows lysates of Jurkat human acute T cell leukemia cell line, MCF-7 human breast cancer cell line, and PC-3 human prostate cancer cell line. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Human FoxO3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6165) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for FoxO3 at approximately 90 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p><b>Immunocytochemistry</b></p>  <p><b>FoxO3 in MCF-7 Human Cell Line.</b> FoxO3 was detected in immersion fixed MCF-7 human breast cancer cell line using Sheep Anti-Human FoxO3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6165) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red, upper panel; Catalog # NL010) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei and cytoplasm. View our protocol for <a href="#">Fluorescent ICC Staining of Cells on Coverslips</a>.</p>
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## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Forkhead box O3 (FoxO3) is a ubiquitously expressed 72 kDa transcriptional regulator that is involved in cellular differentiation, angiogenesis, tumor progression, apoptosis, and the responses to oxidative stress and DNA damage. Phosphorylation of FoxO3 by Akt induces its association with 14-3-3 proteins and its retention in the cytoplasm. In response to the loss of survival factors, dephosphorylation of FoxO3 induces its translocation to the nucleus where it promotes apoptosis. Its level of acetylation is regulated in response to cellular metabolic requirements. Within amino acids 372-673 (C-terminal to the DNA binding domain), human FoxO3 shares 95% aa sequence identity with mouse and rat FoxO3.