

#9946 Store at -20°C

## Forkhead Signaling Antibody Sampler Kit

1 Kit (8 x 20 microliters)



**Cell Signaling**  
TECHNOLOGY®

**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

**For Research Use Only. Not for Use in Diagnostic Procedures.**

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Phospho-FoxO1 (Thr24)/FoxO3a (Thr32) Antibody	9464	20 µl	78 to 82, 95 kDa	Rabbit
Phospho-FoxO1 (Ser256) Antibody	9461	20 µl	82 kDa	Rabbit
Phospho-FoxO1 (Thr24)/FoxO3a (Thr32)/FoxO4 (Thr28) (4G6) Rabbit mAb	2599	20 µl	65, 78 to 82, 95 kDa	Rabbit
FoxO1 (C29H4) Rabbit mAb	2880	20 µl	78 to 82 kDa	Rabbit IgG
Phospho-FoxO3a (Ser253) (D18H8) Rabbit mAb	13129	20 µl	97 kDa	Rabbit IgG
Phospho-FoxO3a (Ser318/321) Antibody	9465	20 µl	97 kDa	Rabbit
FoxO4 Antibody	9472	20 µl	65 kDa	Rabbit
FoxO3a (D19A7) Rabbit mAb	12829	20 µl	82 to 97 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit [cellsignal.com](http://cellsignal.com) for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

### Description

This sampler kit provides an economical means to investigate Forkhead signaling. The kit contains primary and secondary antibodies to perform two Western blots with each antibody.

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

### Background

The Forkhead family of transcription factors is involved in tumorigenesis of rhabdomyosarcoma and acute leukemias (1-3). Within the family, three members (FoxO1, FoxO4, and FoxO3a) have sequence similarity to the nematode orthologue DAF-16, which mediates signaling via a pathway involving IGFR1, PI3K, and Akt (4-6). Active forkhead members act as tumor suppressors by promoting cell cycle arrest and apoptosis. Increased expression of any FoxO member results in the activation of the cell cycle inhibitor p27 Kip1. Forkhead transcription factors also play a part in TGF- $\beta$ -mediated upregulation of p21 Cip1, a process negatively regulated through PI3K (7). Increased proliferation results when forkhead transcription factors are inactivated through phosphorylation by Akt at Thr24, Ser256, and Ser319, which results in nuclear export and inhibition of transcription factor activity (8). Forkhead transcription factors can also be inhibited by the deacetylase sirtuin (SirT1) (9).

### Background References

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