## FOXO3 Recombinant Monoclonal Antibody

| Product Code | CSB-RA008836A0HU |
| :---: | :---: |
| Abbreviation | Forkhead box protein O3 |
| Storage | Upon receipt, store at $-20^{\circ} \mathrm{C}$ or $-80^{\circ} \mathrm{C}$. Avoid repeated freeze. |
| Uniprot No. | 043524 |
| Immunogen | A synthesized peptide derived from human FOXO3 |
| Species Reactivity | Human |
| Tested Applications | ELISA, WB, IHC, IF; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, IF:1:20-1:200 |
| Relevance | Transcriptional activator which triggers apoptosis in the absence of survival factors, including neuronal cell death upon oxidative stress (PubMed:10102273, PubMed:16751106). Recognizes and binds to the DNA sequence 5'-[AG]TAAA[TC]A-3' (PubMed:21329882). Participates in post-transcriptional regulation of MYC: following phosphorylation by MAPKAPK5, promotes 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:21329882). In response to metabolic stress, translocates into the mitochondria where it promotes mtDNA transcription (PubMed:23283301). |
| Form | Liquid |
| Conjugate | Non-conjugated |
| Storage Buffer | Rabbit $\lg \mathrm{G}$ in phosphate buffered saline , $\mathrm{pH} 7.4,150 \mathrm{mM} \mathrm{NaCl}, 0.02 \%$ sodium azide and 50\% glycerol. |
| Purification Method | Affinity-chromatography |
| Isotype | Rabbit lgG |
| Clonality | Monoclonal |
| Alias | Forkhead box protein O3, AF6q21 protein, FOXO3 |
| Immunogen Species | Homo sapiens (Human) |
| Research Area | Epigenetics and Nuclear Signaling |
| Gene Names | FOXO3 |
| Clone No. | 1E2 |
| Image |  |



Western Blot
Positive WB detected in: 293 whole cell lysate, Jurkat whole cell lysate, SH-SY5Y whole cell lysate, U87 whole cell lysate
All lanes: FOXO 3 A antibody at $1.8 \mu \mathrm{~g} / \mathrm{ml}$
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 72, 49 KDa
Observed band size: 72-90 KDa


IHC image of CSB-RA008836AOHU diluted at 1:180 and staining in paraffin-embedded human endometrial cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer ( pH 6.0 ). Section was blocked with $10 \%$ normal goat serum 30 min at RT. Then primary antibody ( $1 \%$ BSA) was incubated at 4? overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.


IHC image of CSB-RA008836A0HU diluted at 1:180 and staining in paraffin-embedded human tonsil tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with $10 \%$ normal goat serum 30 min at RT. Then primary antibody ( $1 \%$ BSA) was incubated at 4 ? overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.


Immunofluorescence staining of PC3 cells with CSB-RA008836A0HU at 1:60, counter-stained with DAPI. The cells were fixed in $4 \%$ formaldehyde, permeabilized using 0.2\% Triton X-100 and blocked in $10 \%$ normal Goat Serum. The cells were then incubated with the antibody overnight at 4?. The secondary antibody was Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit $\operatorname{lgG}(\mathrm{H}+\mathrm{L})$.

CUSABIO's product CSB-RA008836AOHU is a FOXO3 recombinant monoclonal antibody. Clone the gene fragment encoding human FOXO3 protein into the expression vector and subsequently transfect clones into the cell line for in vitro expression. This FOXO3 recombinant antibody can detect the endogenous content of the human FOXO3 protein. It is purified by the affinity chromatography method. And it has passed through quality testing in ELISA, WB, IHC, and IF applications.

As a central transcription factor, FOXO3 mediates multiple physiological and pathological processes by inducing transcription of target genes involved in apoptosis, proliferation, cell cycle progression, survival, and DNA damage. FOXO3 has been consistently linked to longevity in vivo models. It also participates in regulating the autophagy process in muscle and in cancer cells. The deregulation of FOXO3 expression or activity can result in various diseases, particularly cancer.

