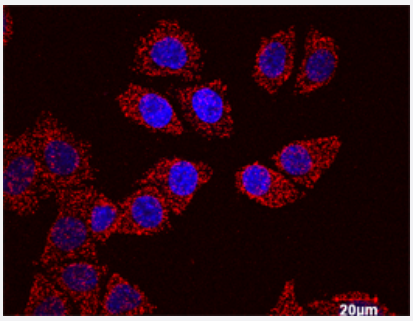
AKT1 & FOXO3 Protein Protein Interaction Antibody Pair

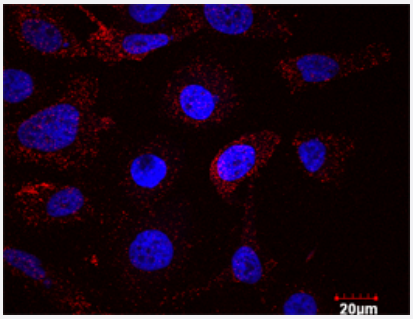
Catalog # DI0289 Size 1 Set

Applications



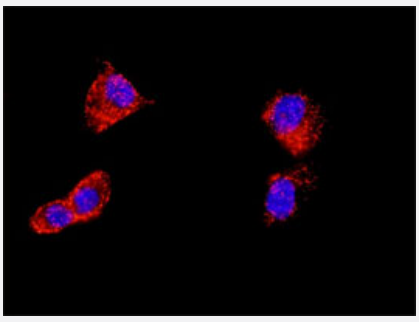
In situ Proximity Ligation Assay (Cell)

Confocal microscopy image of Proximity Ligation Assay of protein-protein interactions between AKT1 and FOXO3. HT-29 cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:100 and anti-FOXO3 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).



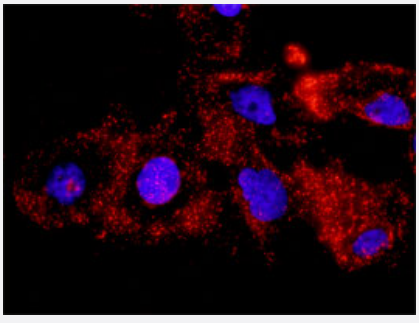
In situ Proximity Ligation Assay (Cell)

Confocal microscopy image of Proximity Ligation Assay of protein-protein interactions between AKT1 and FOXO3. PC-3 cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:100 and anti-FOXO3 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).



In situ Proximity Ligation Assay (Cell)

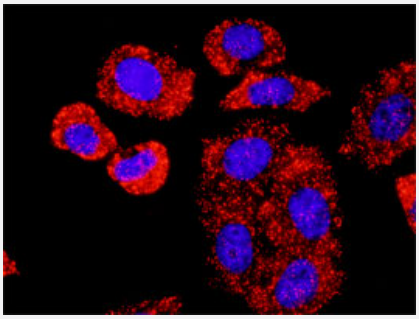
Representative image of Proximity Ligation Assay of protein-protein interactions between AKT1 and FOXO3. A-549 cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:100 and anti-FOXO3 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).



In situ Proximity Ligation Assay (Cell)

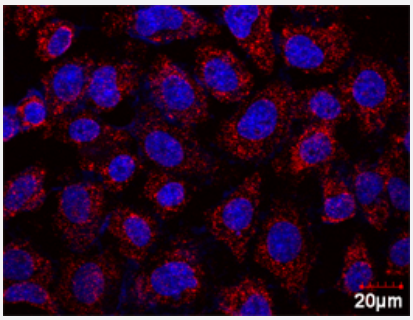
Representative image of Proximity Ligation Assay of protein-protein interactions between AKT1 and FOXO3. PC-3 cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:100 and anti-FOXO3 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

Copyright © 2023 Abnova Corporation. All Rights Reserved.



In situ Proximity Ligation Assay (Cell)

Representative image of Proximity Ligation Assay of protein-protein interactions between AKT1 and FOXO3. HT-29 cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:100 and anti-FOXO3 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).



Representative image of Proximity Ligation Analysis of protein-protein interactions between AKT1 and FOXO3. HeLa cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:100 and anti-FOXO3 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex. The images were analyzed using an optimized freeware (BlobFinder) download from The Centre for Image Analysis at Uppsala University.

Specification

Product Description	This protein protein interaction antibody pair set comes with two antibodies to detect the protein-protein interaction, one against the AKT1 protein, and the other against the FOXO3 protein for use in *in situ* Proximity Ligation Assay. See Publication Reference below.
Reactivity	Human
Quality Control Testing	Protein protein interaction immunofluorescence result. Representative image of Proximity Ligation Analysis of protein-protein interactions between AKT1 and FOXO3. HeLa cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:100 and anti-FOXO3 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex. The images were analyzed using an optimized freeware (BlobFinder) download from The Centre for Image Analysis at Uppsala University.
Supplied Products	Antibody pair set content: 1. AKT1 rabbit purified polyclonal antibody (100 ug) 2. FOXO3 mouse monoclonal antibody (40 ug) *Reagents are sufficient for at least 30-50 assays using recommended protocols.
Storage Instruction	Store reagents of the antibody pair set at -20°C or lower. Please aliquot to avoid repeated freeze thaw cycle. Reagents should be returned to -20°C storage immediately after use.

Applications

Copyright © 2023 Abnova Corporation. All Rights Reserved.

- *In situ* Proximity Ligation Assay (Cell)

  Confocal microscopy image of Proximity Ligation Assay of protein-protein interactions between AKT1 and FOXO3. HT-29 cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:100 and anti-FOXO3 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

- *In situ* Proximity Ligation Assay (Cell)

  Confocal microscopy image of Proximity Ligation Assay of protein-protein interactions between AKT1 and FOXO3. PC-3 cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:100 and anti-FOXO3 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

- *In situ* Proximity Ligation Assay (Cell)

  Representative image of Proximity Ligation Assay of protein-protein interactions between AKT1 and FOXO3. A-549 cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:100 and anti-FOXO3 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

- *In situ* Proximity Ligation Assay (Cell)

  Representative image of Proximity Ligation Assay of protein-protein interactions between AKT1 and FOXO3. PC-3 cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:100 and anti-FOXO3 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

- *In situ* Proximity Ligation Assay (Cell)

  Representative image of Proximity Ligation Assay of protein-protein interactions between AKT1 and FOXO3. HT-29 cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:100 and anti-FOXO3 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

Gene Info — AKT1

Entrez GeneID	207
Gene Name	AKT1
Gene Alias	AKT, MGC99656, PKB, PKB-ALPHA, PRKBA, RAC, RAC-ALPHA
Gene Description	v-akt murine thymoma viral oncogene homolog 1
Omim ID	164730 181500
Gene Ontology	Hyperlink

Copyright © 2023 Abnova Corporation. All Rights Reserved.

Gene Summary	The serine-threonine protein kinase encoded by the AKT1 gene is catalytically inactive in serum-starved primary and immortalized fibroblasts. AKT1 and the related AKT2 are activated by platelet-derived growth factor. The activation is rapid and specific, and it is abrogated by mutations in the pleckstrin homology domain of AKT1. It was shown that the activation occurs through phosphatidyl inositol 3-kinase. In the developing nervous system AKT is a critical mediator of growth factor-induced neuronal survival. Survival factors can suppress apoptosis in a transcription-independent manner by activating the serine/threonine kinase AKT1, which then phosphorylates and inactivates components of the apoptotic machinery. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq
Other Designations	RAC-alpha serine/threonine-protein kinase|murine thymoma viral (v-akt) oncogene homolog-1|protein kinase B|rac protein kinase alpha

Gene Info — FOXO3

Entrez GeneID	2309
Gene Name	FOXO3
Gene Alias	AF6q21, DKFZp781A0677, FKHRL1, FKHRL1P2, FOXO2, FOXO3A, MGC12739, MGC31925
Gene Description	forkhead box O3
Omim ID	602681
Gene Ontology	Hyperlink
Gene Summary	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
Other Designations	OTTHUMP00000016944|forkhead box O3A|forkhead homolog (rhabdomyosarcoma) like 1|forkhead, Drosophila, homolog of, in rhabdomyosarcoma-like 1

Pathway

- Acute myeloid leukemia
- Adipocytokine signaling pathway
- Apoptosis
- B cell receptor signaling pathway
- Chemokine signaling pathway

Copyright © 2023 Abnova Corporation. All Rights Reserved.

- Chemokine signaling pathway
- Chronic myeloid leukemia
- Colorectal cancer
- Endometrial cancer
- Endometrial cancer
- ErbB signaling pathway
- Fc epsilon RI signaling pathway
- Fc gamma R-mediated phagocytosis
- Focal adhesion
- Glioma
- Insulin signaling pathway
- Jak-STAT signaling pathway
- MAPK signaling pathway
- Melanoma
- mTOR signaling pathway
- Neurotrophin signaling pathway
- Neurotrophin signaling pathway
- Non-small cell lung cancer
- Non-small cell lung cancer
- Pancreatic cancer
- Pathways in cancer
- Prostate cancer
- Renal cell carcinoma
- Small cell lung cancer
- T cell receptor signaling pathway
- Tight junction

Copyright © 2023 Abnova Corporation. All Rights Reserved.

- Toll-like receptor signaling pathway
- VEGF signaling pathway

Disease

- Adenocarcinoma
- Alzheimer disease
- Alzheimer disease
- Amenorrhea
- Amphetamine-Related Disorders
- Atherosclerosis
- Basal Ganglia Diseases
- Bipolar Disorder
- Breast Neoplasms
- Calcinosis
- Carcinoma
- Cardiovascular Diseases
- Cardiovascular Diseases
- Cleft Lip
- Cleft Palate
- Cognition
- Cognition
- Colonic Neoplasms
- Colorectal Neoplasms
- Coronary Artery Disease
- Depressive Disorder
- Diabetes Complications

Copyright © 2023 Abnova Corporation. All Rights Reserved.

- Diabetes Mellitus
- Diabetes Mellitus
- Disease Progression
- Disease Susceptibility
- Dominance
- Drug Toxicity
- Dyskinesia
- Edema
- Edema
- Endometrial Neoplasms
- Endometriosis
- Esophageal Neoplasms
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- HIV Infections
- Infertility
- Leukemia
- Liver Cirrhosis
- Lung Neoplasms
- Memory
- Metabolic Syndrome X
- Narcolepsy
- Necrosis
- Neoplasm Metastasis
- Neoplasm Recurrence
- Neoplasms

Copyright © 2023 Abnova Corporation. All Rights Reserved.

- Neuropsychological Tests
- Obesity
- Obesity
- Osteoporosis
- Ovarian Failure
- Ovarian Failure
- Ovarian Neoplasms
- Parkinson disease
- Polycystic Ovary Syndrome
- Precursor T-Cell Lymphoblastic Leukemia-Lymphoma
- Primary Ovarian Insufficiency
- Prostatic Neoplasms
- Psychiatric Status Rating Scales
- Psychoses
- Psychotic Disorders
- Puberty
- Pulmonary Disease
- Rectal Neoplasms
- Retinal Neoplasms
- Retinoblastoma
- Schizophrenia
- Space Perception
- Thrombophilia
- Thyroid Neoplasms
- Tobacco Use Disorder
- Tobacco Use Disorder

Copyright © 2023 Abnova Corporation. All Rights Reserved.

- Tooth Abnormalities
- Tuberculosis
- Urinary Bladder Neoplasms
- Verbal Learning
- Werner syndrome

Copyright © 2023 Abnova Corporation. All Rights Reserved.