Autophagy Signaling Pathway

Antibodies
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### Autophagy Signaling Pathway Diagram

- **mTOR**
  - Related Antibodies: BS1555, BS1844, BS3611
  - mTOR (phospho-S2448): BS4706
- **ATG7**
  - ATG4A: BS7735
  - ATG4B: BS61557
  - ATG16L1: BS61617
  - ATG5: AP6026
  - ATG4D: AP0775
- **MAP1LC3A**
  - MAP1LC3B: AP1016, AP1013
- **ULK1**
  - ULK1 (phospho-Ser555): AP4003
  - PIK3C3/VPS34: AP1010
  - PIK3R4: AP1011
- **PRAS40**
  - BS1504
- **Raptor**
  - AP1001
- **MLST8**
  - AP1000
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Autophagy is the natural, regulated, destructive mechanism of the cell that disassembles unnecessary or dysfunctional components.

Autophagy allows the orderly degradation and recycling of cellular components. In macroautophagy, targeted cytoplasmic constituents are isolated from the rest of the cell within a double-membranated vesicle known as an autophagosome. The autophagosome eventually fuses with lysosomes and the contents are degraded and recycled. Two additional forms of autophagy are also commonly described: microautophagy and chaperone-mediated autophagy (CMA). In disease, autophagy has been seen as an adaptive response to stress, which promotes survival, whereas in other cases it appears to promote cell death and morbidity.
mTOR, or FKBP12-rapamycin associated protein (FRAP), is one of a family of proteins involved in cell cycle progression, DNA recombination, and DNA damage detection.

**RABBIT POLYCLONAL ANTI - mTOR**

The FKBP12-rapamycin complex is known to inhibit progression through the G1 cell cycle stage by interfering with mitogenic signaling pathways involved in G1 progression in several cell types, as well as in yeast. The binding of FRAP to FKBP12-rapamycin correlated with the ability of these ligands to inhibit cell cycle progression.

**REFERENCES**


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**APPLICATIONS**

- WB IHC

**HOST**

- Rabbit

**REACTIVITY**

- Human, Mouse, Rat

**DESCRIPTION**

Immunohistochemistry (IHC) analyzes of mTOR (P2476) pAb in paraffin-embedded human colorectal carcinoma tissue at 1:50.

Western blot (WB) analysis of mTOR (P2476) pAb at 1:1000 dilution

Lane1: HepG2 whole cell lysate (40ug)

Lane2: PC3 whole cell cell lysate (40ug)

Lane3: 786-O whole cell lysate (40ug)

Lane4: L02 whole cell lysate (40ug)
RABBIT POLYCLONAL ANTI - mTOR

mTOR, or FKBP12-rapamycin associated protein (FRAP), is one of a family of proteins involved in cell cycle progression, DNA recombination, and DNA damage detection.

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APPLICATIONS: WB IHC
HOST: Rabbit
REACTIVITY: Human, Mouse, Rat

DESCRIPTION
The FKBP12-rapamycin complex is known to inhibit progression through the G1 cell cycle stage by interfering with mitogenic signaling pathways involved in G1 progression in several cell types, as well as in yeast. The binding of FRAP to FKBP12-rapamycin correlated with the ability of these ligands to inhibit cell cycle progression.

WB at 1:500 dilution
Lane1: NIH-3T3 whole cell lysate(40μg)
Lane2: HEK293T whole cell lysate(40μg)
Lane3: H9C2 whole cell lysate(40μg)
Lane4: Hela whole cell lysate(40μg)
Lane5: MCF-7 whole cell lysate(40μg)
Lane6: HepG2 whole cell lysate(40μg)

Western blot analysis of extracts from HEK293T cells transfected with control shRNA (-) (Lane 1) or mTOR shRNA (+) (Lane 2). mTOR was detected using mTOR Antibody BS1844. The mTOR Antibody confirms silencing of mTOR expression.
mTOR, or FKBP12-rapamycin associated protein (FRAP), is one of a family of proteins involved in cell cycle progression, DNA recombination, and DNA damage detection.

**Catalog ID**

BS3611

**Size**

50ul/100ul

**BiowMW**

~289 kDa

**Swiss-Prot**

P42345

**Applications**

WB, IHC, IF

**Host**

Rabbit

**Reactivity**

Human, Mouse, Rat

**Description**

*The FKBP12-rapamycin complex is known to inhibit progression through the G1 cell cycle stage by interfering with mitogenic signaling pathways involved in G1 progression in several cell types, as well as in yeast. The binding of FRAP to FKBP12-rapamycin correlated with the ability of these ligands to inhibit cell cycle progression.*

**Western Blot Analysis**

- **Lane 1**: NIH-3T3 whole cell lysate (40ug)
- **Lane 2**: HEK293T whole cell lysate (40ug)
- **Lane 3**: H9C2 whole cell lysate (40ug)
- **Lane 4**: Hela whole cell lysate (40ug)
- **Lane 5**: MCF-7 whole cell lysate (40ug)
- **Lane 6**: HepG2 whole cell lysate (40ug)

Western blot analysis of extracts from HEK293T cells, no-transfected (Lane 1), transfected with control shRNA (-) (Lane 2) or mTOR shRNA (+) (Lane 3). mTOR was detected using mTOR Antibody BS3611. The mTOR Antibody confirms silencing of mTOR expression.
RABBIT POLYCLONAL
ANTI - mTOR (phospho-S2448)

Several studies have shown that mTOR is a direct substrate for the AKT kinase and identified Ser-2448 as the AKT target site in mTOR.

**CATALOG ID**
BS4706

**SIZE**
50ul/ 100ul

**BiowMW**
~ 289 kDa

**SWISS-PROT**
P42345

**APPLICATIONS**
WB IHC

**HOST**
Rabbit

**REACTIVITY**
Human, Mouse, Rat

**DESCRIPTION**
The FKBP12-rapamycin complex is known to inhibit progression through the G1 cell cycle stage by interfering with mitogenic signaling pathways involved in G1 progression in several cell types, as well as in yeast. The binding of FRAP to FKBP12-rapamycin correlated with the ability of these ligands to inhibit cell cycle progression.

**REFERENCES**

**WB at 1:500 dilution**
Lane1:HEK293T cell lysate treated with insulin(100nM,30mins)
Lane2:Raw264.7 cell lysate treated with insulin(100nM,30mins)
Lane3:PC12 cell lysate treated with insulin(100nM,30mins)

**Immunohistochemistry (IHC) analyzes of p-mTOR (S2448) pAb in paraffin-embedded human brain tissue.**

**WB at 1:500 dilution**
Lane1:L02 whole cell lysate
Lane2:L02 treated with EGF(0.1ng/ml,5min) whole cell lysate
Lane3:L02 treated with EGF(0.1ng/ml,10min) whole cell lysate
Lane4:L02 treated with EGF(0.1ng/ml,15mins)
Yeast Apg7 and the human homolog, APG7, share similarities with the ubiquitin-activating enzyme E1 in Saccharomyces cerevisiae, and are likewise responsible for enzymatically activating the autophagy conjugation system.

**DESCRIPTION**

*In yeast, autophagy is an essential process for survival during nutrient starvation and cell differentiation. The process of autophagy is characterized as a non-selective degradation of cytoplasmic proteins into membrane structures called autophagosomes, and it is dependent on several proteins, including the autophagy proteins APG5 and APG7.*

**REFERENCES**


WesternBlot (WB) analysis of ATG7 pAb in extracts from 293T cells.
RABBIT POLYCLONAL ANTI-ATG4A

Autophagy, a process that results in the lysosomal-dependent degradation of cytosolic compartments, is carried out by the autophagosome, which is a double-membrane vesicle whose formation is catalyzed by several autophagy-related gene (Atg) proteins.

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<td>Q8WYN0</td>
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</table>

APPLICATIONS

WB IHC IP

HOST

Rabbit

REACTIVITY

Human, Mouse, Rat

DESCRIPTION

Atg4a (ATG4 autophagy related 4 homolog A), also known as APG4A or AUTL2, is a 398 amino acid protein that localizes to the cytoplasm and belongs to the peptidase C54 family. Expressed in a variety of tissues, including brain, skeletal muscle and fetal liver, Atg4a functions as a cysteine protease that cleaves the C-terminal part of target proteins, such as GABARAP and MAP1LC3, and plays an essential role in autophagy.

WesternBlot (WB) analysis of ATG4A polyclonal antibody

Immunohistochemistry (IHC) analysis of ATG4A polyclonal antibody in paraffin-embedded Human Lung Cancer tissue.

Immunoprecipitation analysis of ATG4A polyclonal antibody
RABBIT POLYCLONAL
ANTI - ATG4B

Atg4 primes the Atg8 homolog for lipidation by cleaving its carboxy terminus and exposing its glycine residue for E1-like enzyme Atg7.

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<tr>
<td>BS61557</td>
<td>50ul/ 100ul</td>
<td>~ 48 kDa</td>
<td>Q9Y4P1</td>
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APPLICATIONS | HOST | REACTIVITY |
--- | --- | --- |
WB | Rabbit | Human, Rat, Mouse

DESCRIPTION

*The Atg8 homolog is transferred to the E2-like enzyme Atg3 before forming the Atg8-PE conjugate. During later stages of autophagy, Atg4 can reverse this lipidation event by cleaving PE, thereby recycling the Atg8 homolog. While Atg4B displays a broad specificity for Atg8 homologues, it preferentially cleaves LC3. Mutation in the corresponding Atg4B gene can be associated with strong inhibition of autophagosome formation.*

WB at 1:500 dilution
Lane1:HCT116 whole cell lysate(40ug)
Lane2:HEK293T whole cell lysate(40ug)
Lane3:The Kidney lysate of Mouse(40ug)
Lane4:The Kidney lysate of Rat(40ug)
RABBIT POLYCLONAL
ANTI-ATG16L1

Mammalian Atg16L1, containing an amino-terminal coiled coil domain and arboxyl-terminal WD-repeats, has multiple isoforms produced by alternative splicing.

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<td>BS61617</td>
<td>50ul/100ul</td>
<td>~72 kDa</td>
<td>Q676U5</td>
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APPLICATIONS | HOST         | REACTIVITY |
--------------|--------------|------------|
WB            | Rabbit       | Human      |

DESCRIPTION
Atg16L1 binds Atg5 of the Atg12-Atg5 conjugate forming an 800 kDa multimeric complex. The Atg12-Atg5-Atg16L1 complex localizes to pre-autophagosomal membranes where it determines the site of LC3 lipidation and catalyzes the reaction required for the formation of mature autophagosomes. Genome-wide association scanning revealed variations in the Atg16L1 gene associated with Crohn's disease.

 WB 1:500 dilution
Lane1:A549 whole cell lysate(40ug)
Lane2:PC3 whole cell lysate(40ug)
Lane3:HCT116 whole cell lysate(40ug)
Lane4:HepG2 whole cell lysate(40ug)
Autophagy protein 5 is a protein that in humans is encoded by the ATG5 gene. It is an E3 ubiquitin ligase which is necessary for autophagy due to its role in autophagosome elongation.

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<tr>
<td>AP6026</td>
<td>50ul/100ul</td>
<td>~55kDa</td>
<td>Q9H1Y0</td>
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**APPLICATIONS**
WB IHC IF

**HOST**
Rabbit

**REACTIVITY**
Human, Mouse, Rat

**DESCRIPTION**

*Autophagy is required for the homeostasis of cellular material and is proposed to be involved in many aspects of health. Defects in the autophagy pathway have been observed in neurodegenerative disorders; however, no genetically-inherited pathogenic mutations in any of the core autophagy-related (ATG) genes have been reported in human patients to date.*
RABBIT POLyclonal
ANTI - ATG4D

Atg4D (autophagy-related gene 4D), also known as APG4D or AUTL4, is a 474 amino acid protein that localizes to the cytoplasm and belongs to the C-54 family of cysteine proteases.

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<td>AP0775</td>
<td>50ul/ 100ul</td>
<td>~ 53 kDa</td>
<td>Q86TL0</td>
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APPLICATIONS
HOST
REACTIVITY
WB
Rabbit
Human, Mouse, Rat

DESCRIPTION

Expressed predominately in skeletal muscle, but also present in testis, Atg4D functions as a cysteine protease that is required for autophagy and functions to specifically cleave the C-terminal region of target proteins, thereby allowing the target proteins to bind to autophagosomes. The enzymatic activity of Atg4D is inhibited by Nethylmaleimide, a thiol reactive compound that is capable of modifying cystine residues in proteins and peptides.

WB at 1:500 dilution
Lane1: U-87MG whole cell lysate (40ug)
Lane2: L02 whole cell lysate (40ug)
Lane3: HCT116 whole cell lysate (40ug)
Lane4: CT26 whole cell lysate (40ug)
Lane5: The Testis tissue lysate of Rat (40ug)
RABBIT POLyclonal
ANTI - MAP1LC3A

Microtubule-associated proteins 1A/1B light chain 3A is a protein that in humans is encoded by the MAP1LC3A gene. Two transcript variants encoding different isoforms have been found for this gene.

CATALOG ID
BS7644

SIZE
50ul/ 100ul

BiowMW
~14 kDa

SWISS-PROT
Q9H492

APPLICATIONS
WB IHC IF

HOST
Rabbit

REACTIVITY
Human, Mouse, Rat

DESCRIPTION
Autophagy marker Light Chain 3 (LC3) was originally identified as a subunit of microtubule-associated proteins 1A and 1B (termed MAP1LC3), and subsequently found to contain similarity to the yeast protein Apg8/Aut7/Cvt5 critical for autophagy. Three human LC3 isoforms (LC3A, LC3B, and LC3C) undergo post-translational modifications during autophagy.

REFERENCES
PPARγ Maintains Homeostasis through Autophagy Regulation in Dental Pulp

Western blot analysis of MAP1LC3A polyclonal antibody

Immunohistochemistry (IHC) analysis of MAP1LC3A polyclonal antibody in paraffin-embedded Human Kidney Cancer tissue.

Immunofluorescence analysis of Hela cells, using MAP1LC3A polyclonal antibody
RABBIT POLyclonal ANTI-LC3

LC3 is a central protein in the autophagy pathway where it functions in autophagy substrate selection and autophagosome biogenesis. LC3 is the most widely used maker of autophagosomes.

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<td>AP1013</td>
<td>50ul/100ul</td>
<td>~15kDa</td>
<td>Q9GZQ8/Q9H492/Q9BXW4</td>
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**APPLICATIONS**  
WB  
**HOST**  
Rabbit  
**REACTIVITY**  
Human, Mouse, Rat

**DESCRIPTION**

LC3 shares structural homology with ubiquitin, and thus has been termed a ubiquitin-like protein. LC3 has a LDS (LIR docking site)/hydrophobic binding interface in the N terminus which interacts with LIR (LC3 Interacting Region) containing proteins.

![Western blot (WB) analysis of LC3](image1)

Lane 1: BV2 whole cell lysate (40ug)  
Lane 2: SGC7901 whole cell lysate (40ug)  
Lane 3: SK-OVCAR3 whole cell lysate (10ug)  
Lane 4: L02 whole cell lysate (10ug)  
Lane 5: HEK293T whole cell lysate (40ug)

![Western blot (WB) analysis of LC3](image2)

Lane 1: HEK293T whole cell lysate (40ug)  
Lane 2: HEK293T transfected with pEGFP-C3 whole cell lysate (10ug)  
Lane 3: HEK293T transfected with pEGFP-C3-LC3B whole cell lysate (10ug)
RABBIT POLYCLONAL
ANTI - MAP1LC3B

LC3 is a protein that in humans is encoded by the MAP1LC3B gene. LC3 is a central protein in the autophagy pathway where it functions in autophagy substrate selection and autophagosome biogenesis.

CATALOG ID
AP6043

SIZE
50ul/ 100ul

BiowMW
~ 17 kDa

SWISS-PROT
Q9GZQ8

APPLICATIONS
WB IHC IF

HOST
Rabbit

REACTIVITY
Human, Rat, Mouse

DESCRIPTION
The importance of the nuclear functions of autophagy proteins should not be underestimated. A large pool of LC3 is present in the nucleus of a variety of different cell types. In response to starvation, nuclear LC3 is deacetylated and trafficked out of the nucleus into the cytoplasm where it functions in autophagy.

WB at 1:500 dilution
Lane1:HEK293T transfected with pEGFP-C3-LC3B whole cell lysate(40ug)
Lane2:U-87MG whole cell lysate(40ug)
Lane3:The Brain tissue lysate of Mouse(40ug)
Lane4:The Brain tissue lysate of Rat(40ug)

IF image of AP6043 stained HEK293T cells, transfected with pEGFP-C3-MAP1LC3B #PPL00191-2a. The cells were 4% paraformaldehyde fixed (20 min) and then incubated in 10% normal goat serum for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody MAP1LC3B #AP6043(1:200) at 5 µg/ml overnight at +4°C. The secondary antibody (Red) was Goat Anti-Rabbit IgG (H+L) Rhodamine (TRITC) #BS10250 used at a 1/2000 dilution for 1h. Hoechst33342 #BD5011 was used to stain the cell nuclei (blue).
RABBIT POLYCLONAL
ANTI-ULK1

Serine/threonine-protein kinase ULK1 is an enzyme that in humans is encoded by the ULK1 gene.

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<td>AP1005</td>
<td>50ul/100ul</td>
<td>~150 kDa</td>
<td>O75385</td>
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APPLICATIONS
WB

HOST
Rabbit

REACTIVITY
Human, Mouse, Rat

DESCRIPTION
ULK1 is an important protein in autophagy. It is part of the ULK1-complex, which is needed in early steps of autophagosome biogenesis.

Western blot analysis of extracts from HEK293T (control) or ULK1 shRNA # PPL00952-3a. ULK1 was detected using ULK1 pAb #AP1005. The ULK1 Antibody confirms silencing of ULK1 expression.

WB at 1:1000 dilution
Lane1:L02 whole cell lysate(20ug)
Lane2:Panc1 whole cell lysate(20ug)
Lane3:HEK293T whole cell lysate(40ug)
Lane4:HCC827 whole cell lysate(40ug)
Lane5:The Brain tissue lysate of Rat(40ug)
Lane6:The Brain tissue lysate of Mouse(40ug)
RABBIT POLYCLONAL
ANTI - ULK1 (Phospho-Ser555)

Serine/threonine-protein kinase ULK1 is an enzyme that in humans is encoded by the ULK1 gene.

**CATALOG ID**
AP4003

**SIZE**
50ul/100ul

**BiowMW**
~ 150 kDa

**SWISS-PROT**
O75385

**APPLICATIONS**
WB

**HOST**
Rabbit

**REACTIVITY**
Human, Mouse, Rat

**DESCRIPTION**
ULK1 is an important protein in autophagy. It is part of the ULK1-complex, which is needed in early steps of autophagosome biogenesis.

WB at 1:500 dilution
Lane1: LO2 treated with PBS(1×, pH 7.4) for 1 hour then treated with DMEM(10%FBS) for 15 minutes whole cell lysate(40ug)
Lane2: LO2 treated with PBS(1×, pH 7.4) for 1 hour then treated with DMEM(10%FBS) for 5 minutes whole cell lysate(40ug)
Lane3: LO2 treated with PBS(1×, pH 7.4) for 1 hour whole cell lysate(40ug)
Lane4: LO2 whole cell lysate(40ug)
RABBIT POLyclonal ANTI-PIK3C3/VPS34

Phosphatidylinositol 3-kinase catalytic subunit type 3 is an enzyme that in humans is encoded by the PIK3C3 gene.

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<td>AP1010</td>
<td>50ul/100ul</td>
<td>~101 kDa</td>
<td>Q8NEB9</td>
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**APPLICATIONS**

- **HOST**: Rabbit
- **REACTIVITY**: Human

**DESCRIPTION**

*Autophagy is a cellular defense response to stress conditions, such as nutrient starvation. The type III phosphatidylinositol (PtdIns) 3-kinase, whose catalytic subunit is PIK3C3/VPS34, plays a critical role in intracellular membrane trafficking and autophagy induction. PIK3C3 forms multiple complexes and the ATG14-containing PIK3C3 is specifically involved in autophagy induction.*

**WB at 1:500 dilution**

- Lane 1: HCC827 whole cell lysate (40ug)
- Lane 2: HCT116 whole cell lysate (40ug)
Phosphatidylinositol 3-kinase catalytic subunit type 3 is an enzyme that in humans is encoded by the PIK3C3 gene.

**CATALOG ID**  
AP4010

**SIZE**  
50ul/ 100ul

**BiowMW**  
~ 101 kDa

**SWISS-PROT**  
Q8NEB9

**APPLICATIONS**  
WB

**HOST**  
Rabbit

**REACTIVITY**  
Human

**DESCRIPTION**

*Autophagy is a cellular defense response to stress conditions, such as nutrient starvation. The type III phosphatidylinositol (PtdIns) 3-kinase, whose catalytic subunit is PIK3C3/VPS34, plays a critical role in intracellular membrane trafficking and autophagy induction. PIK3C3 forms multiple complexes and the ATG14-containing PIK3C3 is specifically involved in autophagy induction.*

**WB at 1:500 dilution**

Lane1: HEK293T whole cell lysate (40ug)
Lane2: HEK293T treated with Etoposide (20ng/ml) for 5 minutes whole cell lysate
Lane3: HEK293T treated with Etoposide (20ng/ml) for 15 minutes whole cell lysate
RABBIT POLYCLONAL
ANTI - PIK3R4

Regulatory subunit of the PI3K complex. May regulate membrane trafficking late in the endocytic pathway.

<table>
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<td>AP1011</td>
<td>50ul/ 100ul</td>
<td>~ 153 kDa</td>
<td>Q99570</td>
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APPLICATIONS
WB

HOST
Rabbit

REACTIVITY
Human, Mouse, Rat

DESCRIPTION
PIK3R4 enhances the lipid kinase activity of PI3K complexes and may be involved in regulating membrane trafficking late in the endocytic pathway. It is a regulatory subunit of the PI3K complex and is ubiquitously expressed. Within aa 58 - 230, human PIK3R4 shares 99% aa identity with mouse and rat PIK3R4.

WB at 1:500 dilution
Lane1: The Testis tissue lysate of Mouse (40ug)
Lane2: The Testis tissue lysate of Rat (40ug)
Lane3: HCC827 whole cell lysate (40ug)
Lane4: L02 whole cell lysate (40ug)
Lane5: SK-OVCAR3 whole cell lysate (40ug)
RABBIT POLYCLONAL
ANTI-PRAS40

Akt, also known as protein kinase B, is one of the major downstream targets of the phosphatidylinositol 3-kinase pathway. This protein kinase has been implicated in insulin signaling, stimulation of cellular growth, inhibition of apoptosis.

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<td>BS1504</td>
<td>50ul/ 100ul</td>
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<td>Q96B36</td>
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APPLICATIONS  HOST  REACTIVITY

WB  IHC  Rabbit  Human, Mouse, Rat

DESCRIPTION

The proline-rich Akt substrate PRAS40, also designated AKT1S1, becomes phosphorylated by activated Akt on Ser or Thr residues in the motif RXRXX(S/T). Phosphorylated PRAS40 subsequently binds 14-3-3 in a sequence-specific manner, thereby inducing such changes as alteration of protein subcellular localization and regulation of intrinsic enzymatic activity.

Immunohistochemistry (IHC) analyzes of Akt1 S1 (P240) pAb in paraffin-embedded human breast tissue.

WB at 1:500 dilution
Lane1:PC12 whole cell lysate(40ug)
Lane2:CT26 whole cell lysate(40ug)
Lane3:Hela whole cell lysate(40ug)
Lane4:A549 whole cell lysate(40ug)
Lane5:Hct116 whole cell lysate(40ug)
Lane6:HepG2 whole cell lysate(40ug)
The Rictor-FRAP complex plays a role in PKCα phosphorylation, directly phosphorylates Akt/PKB on Ser473 in vitro and facilitates Thr308 phosphorylation by PDK1.

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<td>~ 150 kDa</td>
<td>Q8N122</td>
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<tr>
<td>WB</td>
<td>Rabbit</td>
<td>Human, Mouse, Rat</td>
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**DESCRIPTION**

_This mTOR-raptor interaction and its regulation by nutrients and/or rapamycin is dependent on a protein called GβL. GβL is also part of the rapamycin insensitive complex between mTOR and rictor (rapamycin insensitive companion of mTOR), and may mediate rictor-mTOR signaling to downstream targets including PKCα._

---

**WB at 1:500 dilution**

Lane1: A549 whole cell lysate (40ug)
Lane2: HEK293T whole cell lysate (40ug)
Lane3: MCF-7 whole cell lysate (40ug)
Lane4: AML-12 whole cell lysate (40ug)
RABBIT POLYCLONAL
ANTI - MLST8

Target of rapamycin complex subunit LST8, also known as mammalian lethal with SEC13 protein 8 (mLST8) or TORC subunit LST8 or G protein beta subunit-like (GβL or Gable), is a protein that in humans is encoded by the MLST8 gene.

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<tr>
<td>AP1000</td>
<td>50ul/ 100ul</td>
<td>~38 kDa</td>
<td>Q9BVC4</td>
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APPLICATIONS | HOST | REACTIVITY
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<tbody>
<tr>
<td>WB</td>
<td>Rabbit</td>
<td>Human, Mouse, Rat</td>
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DESCRIPTION
Overexpression of mLST8 induced anchorage-independent cell growth in normal epithelial cells (HaCaT), although mLST8 knockdown had no effect on normal cell growth. mLST8 knockdown reduced mTORC2-mediated phosphorylation of AKT in both cancer and normal cells, whereas it potently inhibited mTORC1-mediated phosphorylation of 4E-BP1 specifically in cancer cells.

Western blot analysis of extracts from HEK293T cells(Lane 3). HEK293T cells transfected with control shRNA for 72h (-) (Lane 2) or MLST8 shRNA (+)(Lane 1). MLST8 was detected using MLST8 pAb #AP1000. The MLST8 Antibody confirms silencing of MLST8 expression.

WB at 1:500 dilution
Lane1: The Heart tissue lysate of Mouse(40ug)
Lane2: The Heart tissue lysate of Rat(40ug)
Lane3: HCC827 whole cell lysate(40ug)
Lane4: L02 whole cell lysate(40ug)
Lane5: HEK293T whole cell lysate(40ug)