



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



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Diagnostik & molekulare Diagnostik



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- Mindermengenzuschlag
- Trockeneiszuschlag
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- Expressversand

### SZABO-SCANDIC HandelsgmbH

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## AKT1(phospho S473) & AKT1 Protein Phosphorylation Antibody Pair

Catalog # : DP0154

規格 : [ 1 Set ]

List All

### Specification

**Product Description:** This protein phosphorylation antibody pair set comes with two antibodies, one against the AKT1 protein, and the other against the specific S473 phosphorylated site of AKT1 for use in *in situ* Proximity Ligation Assay. See Publication Reference below.

### Application Image

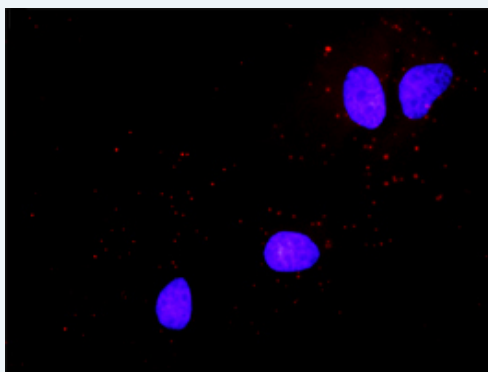
*In situ* Proximity Ligation Assay (Cell)



**Reactivity:** Human

**Quality Control Testing:** Dual recognition immunofluorescence result.

**Testing:**



Representative image of Proximity Ligation Assay of protein phosphorylation. HeLa cells were stained with dual recognition antibody pair set, rabbit polyclonal antibody 1:1200 and mouse monoclonal antibody 1:50. Each red dot represents one single phosphorylated protein. The images were analyzed using an optimized freeware ([BlobFinder](#)) download from The Centre for Image Analysis at Uppsala University.

**Supplied Product:** Antibody pair set content:  
 1. Phospho-AKT1 S473 rabbit polyclonal antibody (20 ul)  
 In PBS, 150 mM NaCl, pH 7.4 (0.02% sodium azide, 50% glycerol)  
 2. AKT1 mouse monoclonal antibody (40 ug)  
 In 1x PBS, pH 7.2  
 \*Reagents are sufficient for at least 30-50 assays using recommended protocols.

**Storage** Store reagents of the antibody pair set at -20°C or lower. Please aliquot  
**Instruction:** to avoid repeated freeze thaw cycle. Reagents should be returned to -20°C storage immediately after use.

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### Publication Reference

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1. [In situ detection of phosphorylated platelet-derived growth factor receptor beta using a generalized proximity ligation method.](#)  
Jarvius M, Paulsson J, Weibrecht I, Leuchowius KJ, Andersson AC, Wahlby C, Gullberg M, Botling J, Sjoblom T, Markova B, Ostman A, Landegren U, Soderberg O.  
Mol Cell Proteomics. 2007 Sep;6(9):1500-9. Epub 2007 Jun 12.
2. [Direct observation of individual endogenous protein complexes in situ by proximity ligation.](#)  
Soderberg O, Gullberg M, Jarvius M, Ridderstrale K, Leuchowius KJ, Jarvius J, Wester K, Hydbring P, Bahram F, Larsson LG, and Landegren U.  
Nat Methods. 2006 Dec;3(12):995-1000. Epub 2006 Oct 29.
3. [Cytokine detection by antibody-based proximity ligation.](#)  
Gullberg M, Gustafsdottir SM, Schallmeiner E, Jarvius J, Bjarnegard M, Betsholtz C, Landegren U, and Fredriksson S.  
Proc Natl Acad Sci U S A. 2004 Jun 1;101(22):8420-4. Epub 2004 May 21.
4. [Protein detection using proximity-dependent DNA ligation assays.](#)  
Fredriksson S, Gullberg M, Jarvius J, Olsson C, Pietras K, Gustafsdottir SM, Ostman A, and Landegren U.  
Nat Biotechnol. 2002 May;20(5):473-7.
5. [Highly specific detection of phosphorylated proteins by Duolink](#)  
Mats Gullberg and Ann-Catrin Andersson  
Nature Methods 6. 2009

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### Applications

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#### *In situ* Proximity Ligation Assay (Cell)

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### Gene Information

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**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](#)

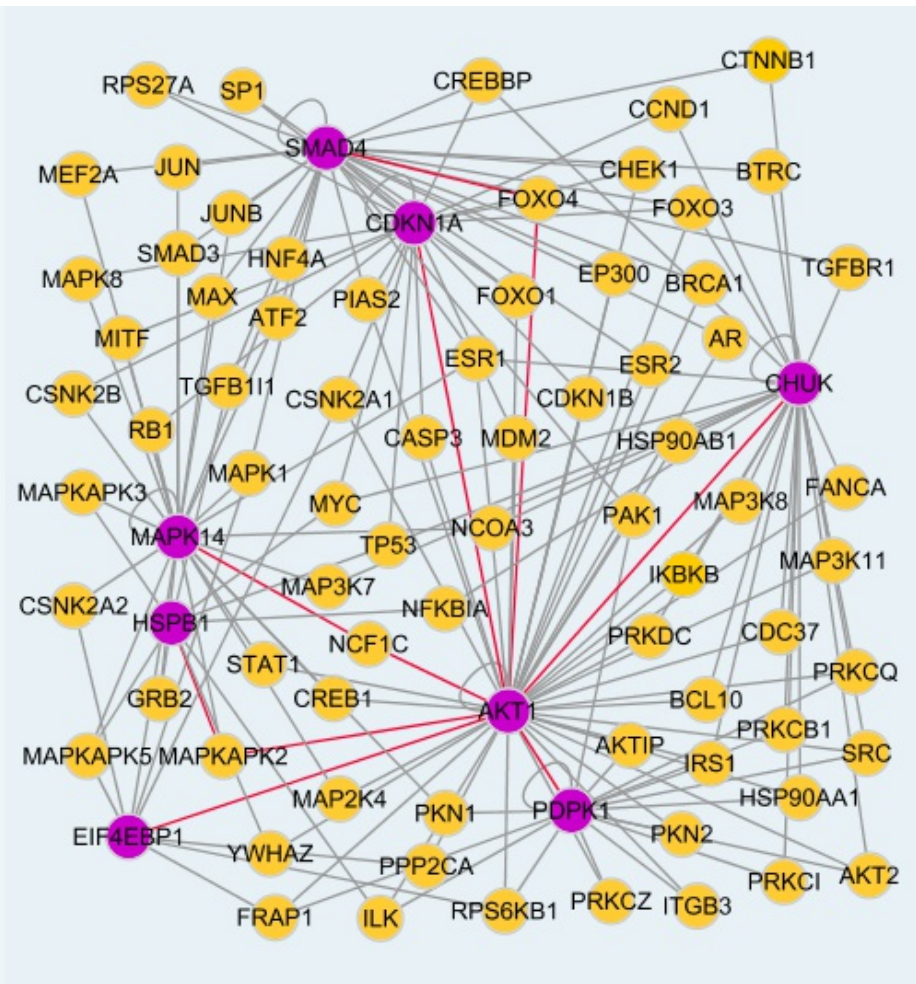
**Gene Summary:** The serine-threonine protein kinase encoded by the AKT1 gene is catalytically inactive in serum-starved primary and immortalized fibroblasts. AKT1 and the related AKT2 are activated by platelet-derived growth factor. The activation is rapid and specific, and it is abrogated by mutations in the pleckstrin homology domain of AKT1. It was shown that the activation occurs through phosphatidylinositol 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

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### Interactome

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**Gene Pathway**

[Acute myeloid leukemia](#) [Adipocytokine signaling pathway](#) [Apoptosis](#)  
[B cell receptor signaling pathway](#) [Chemokine signaling pathway](#) [Chronic myeloid leukemia](#)  
[Colorectal 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](#)  
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[Tight junction](#) [Toll-like receptor signaling pathway](#) [VEGF signaling pathway](#)

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