

**Anti-AKT pS473 (MOUSE) Monoclonal Antibody DyLight™ 488 Conjugated - 200-341-268**
**Code:** 200-341-268

**Size:** 100 µg

**Product Description:** Anti-AKT pS473 (MOUSE) Monoclonal Antibody DyLight™ 488 Conjugated - 200-341-268

**Concentration:** 1.0 mg/mL

**PhysicalState:** Lyophilized

<b>Label</b>	DyLight™ 488
<b>Host</b>	Mouse
<b>Gene Name</b>	AKT1
<b>Emission Wavelength</b>	518
<b>Excitation Wavelength</b>	493
<b>Species Reactivity</b>	human, mouse, rat, monkey
<b>Buffer</b>	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
<b>Reconstitution Volume</b>	100 µL
<b>Reconstitution Buffer</b>	Restore with deionized water (or equivalent)
<b>Stabilizer</b>	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
<b>Preservative</b>	0.01% (w/v) Sodium Azide
<b>Storage Condition</b>	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
<b>Synonyms</b>	mouse anti-AKT pS473 DyLight™ 488 conjugated Antibody, DyLight 488 conjugated mouse anti-AKT pS473 Antibody, RAC-PK-alpha, Protein kinase B, PKB, C-AKT, RAC-alpha serine/threonine-protein kinase, Proto-oncogene c-Akt, AKT1, AKT 1, AKT-1
<b>Application Note</b>	This monoclonal antibody is suitable for immunofluorescence microscopy, FLISA, flow cytometry, and western blotting. Expect a band approximately 56 kDa in size corresponding to phosphorylated AKT protein by western blotting in the appropriate cell lysate or extract. This phospho-specific monoclonal antibody reacts with human and mouse AKT pS473 and shows minimal reactivity by ELISA against the non-phosphorylated form of the immunizing peptide. Specific conditions for reactivity should be optimized by the end user.
<b>Background</b>	AKT is a component of the PI-3 kinase pathway and is activated by phosphorylation at Ser 473 and Thr 308. AKT is a cytoplasmic protein also known as AKT1, Protein Kinase B (PKB) and rac (related to A and C kinases). AKT is a key regulator of many signal transduction pathways. AKT Exhibits tight control over cell proliferation and cell viability. Overexpression or inappropriate activation of AKT is noted in many types of cancer. AKT mediates many of the downstream events of PI 3-kinase (a lipid kinase activated by growth factors, cytokines and insulin). PI 3-kinase recruits AKT to the membrane, where it is activated by PDK1 phosphorylation. Once phosphorylated, AKT dissociates from the membrane and phosphorylates targets in the cytoplasm and the cell nucleus. AKT has two main roles: (i) inhibition of apoptosis; (ii) promotion of proliferation.
<b>Purity And Specificity</b>	This product was purified from concentrated tissue culture supernate by Protein A chromatography. This antibody is specific for human and mouse AKT protein phosphorylated at S473. A BLAST analysis was used to suggest cross-reactivity with AKT pS473 from human, mouse, rat and chimpanzee sources based on 100% homology with the immunizing sequence. Cross-reactivity with AKT from other sources has not been determined. Cross-reactivity with AKT2 and AKT3 has not been determined.
<b>Assay Dilutions</b>	User Optimized
<b>ELISA</b>	1:20,000
<b>Western Blot</b>	1:500 - 1:3,000
<b>Immunohistochemistry</b>	20 ug/ml
<b>IF Microscopy</b>	>1:5,000
<b>Flow Cytometry</b>	User Optimized
<b>Other Assays</b>	User Optimized

**Expiration** Expiration date is one (1) year from date of opening.

**Immunogen** This monoclonal antibody was produced by repeated immunizations with a synthetic peptide corresponding to residues surrounding S473 of human AKT1 protein.

**Related Products**

000-000-401	AKT CONTROL PEPTIDE - 000-000-401
200-301-268	Anti-AKT pS473 (MOUSE) Monoclonal Antibody - 200-301-268
200-301-269	Anti-AKT pT308 (MOUSE) Monoclonal Antibody - 200-301-269
200-301-401	Anti-AKT (MOUSE) Monoclonal Antibody - 200-301-401

**Related Links**

UniProtKB - P31749

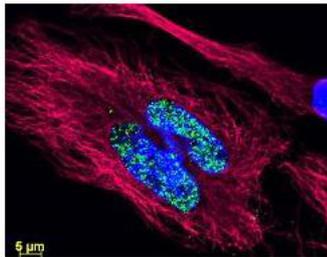
<http://www.uniprot.org/uniprot/P31749>

NCBI - 62241011 <http://www.ncbi.nlm.nih.gov/protein/62241011>

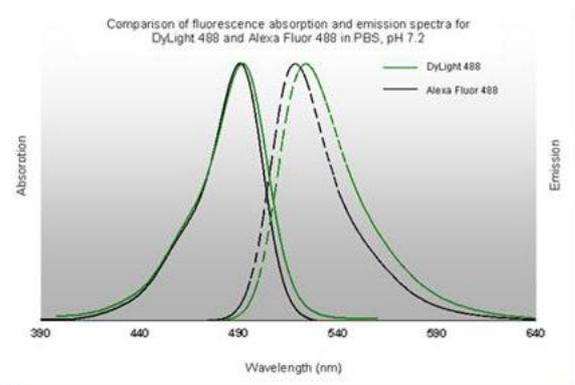
GeneID - 207

**Images**

1 DyLight™ dye 488#DyLight™ dyes can be used for multi-color immunofluorescence microscopy with uniform fluorescence intensity throughout the image. DyLight™ dyes are exceptionally bright and photostable and are optimized for microscopy and microarray detection methods. This image shows anti-histone detection using a DyLight™ 488 conjugate (green). Anti-Tubulin was detected using a DyLight™ 549 conjugate (red). Nuclei were counter-stained using DAPI (blue). The image was captured using an Axio Imager.Z1 (Zeiss Micro Imaging Inc).



2 DyLight™ 488 and Alexa 488 comparison of fluorescence absorption and emission spectra.



3 Properties of DyLight™ Fluorescent Dyes.

Emission	Color	DyLight™ Dye	Ex/Em (nm)	$\epsilon$ (M <sup>-1</sup> cm <sup>-1</sup> )	Similar Dyes
Blue		405	400/420	30,000	Alexa™ 405, Cascade Blue
Green		488	493/518	70,000	Alexa™ 488, Cy2 <sup>®</sup> , FITC
Yellow		549	550/568	150,000	Alexa™ 546, Alexa 555, Cy3 <sup>®</sup> , TRITC
Red		649	646/674	250,000	Alexa™ 647, Cy5 <sup>®</sup>
Near Infrared		680	682/715	140,000	Alexa™ 680, Cy5.5 <sup>®</sup> , IRDye™ 700
Infrared		800	770/794	270,000	IRDye™ 800

## Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.