

# Phospho-AKT1 (Ser473) Recombinant Rabbit Monoclonal Antibody (98H9L8)

Product Details	
Size	100 µg
Species	Human, Mouse
Published Species	Artificial Control, Rat, Bacteria, Human, Mouse
Expression System	Rabbit / IgG
Class	Recombinant Monoclonal
Type	Antibody
Clone	98H9L8
Conjugate	Unconjugated
Immunogen	A peptide corresponding to amino acids 468-477 of P31749.
Form	Liquid
Concentration	0.5 mg/mL
Purification	Protein A
Storage buffer	PBS
Contains	0.09% sodium azide
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.
RRID	AB_2532320

Applications	Tested Dilution	Publications
ELISA (ELISA)	1-5 µg/mL	-
Flow Cytometry (Flow)	1-3 µg/1x10 <sup>6</sup> cells	2 Publications
Immunocytochemistry (ICC)	1-2 µg	-
Immunofluorescence (IF)	1-2 µg	-
Immunohistochemistry (Paraffin) (IHC (P))	0.5-2 µg/mL	1 Publication
Western Blot (WB)	1-3 µg/mL	6 Publications
Functional Assay (FN)	-	1 Publication
Immunohistochemistry (IHC)	-	2 Publications
Miscellaneous PubMed (Misc)	-	1 Publication

## Product Specific Information

This antibody is predicted to react with bovine, canine, chicken, chimpanzee, equine, feline, rat, Rhesus monkey, Xenopus and zebrafish based on sequence homology.

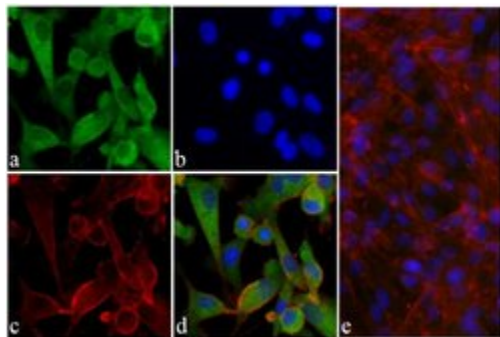
Intact IgG appears on a non-reducing gel as ~150 kDa band and upon reduction generating a ~25 kDa light chain band and a ~50 kDa heavy chain.

Recombinant rabbit monoclonal antibodies are produced using in vitro expression systems. The expression systems are developed by cloning in the specific antibody DNA sequences from immunoreactive rabbits. Then, individual clones are screened to select the best candidates for production. The advantages of using recombinant rabbit monoclonal antibodies include: better specificity and sensitivity, lot-to-lot consistency, animal origin-free formulations, and broader immunoreactivity to diverse targets due to larger rabbit immune repertoire.

## Product Images For Phospho-AKT1 (Ser473) Recombinant Rabbit Monoclonal Antibody (98H9L8)

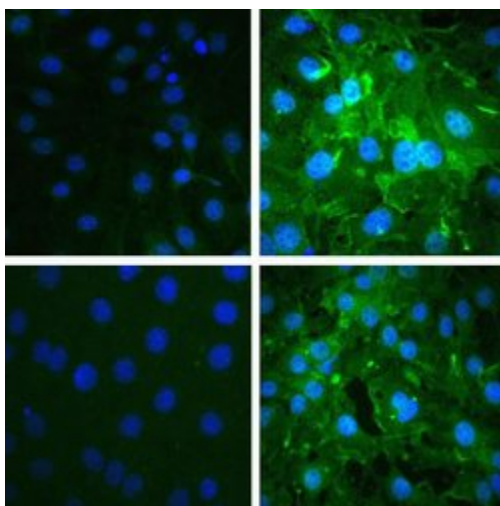
### Phospho-AKT1 (Ser473) Antibody (700392) in IF

Immunofluorescent analysis of AKT (pS473) was done on 70% confluent log phase U-87 MG cells. The cells were fixed with 4% paraformaldehyde for 15 minutes; permeabilized with 0.25% Triton X-100 for 10 minutes followed by blocking with 5% BSA for 1 hour at room temperature. The cells were incubated with AKT (pS473) Recombinant Rabbit Monoclonal Antibody (Product # 700392) at 1  $\mu$ g-2  $\mu$ g in 1% BSA and incubated for 3 hours at room temperature and then labeled with Alexa Fluor® 488 Goat anti-Rabbit IgG Secondary Antibody (Product # A-11008) at a dilution of 1:400 for 30 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Alexa Fluor® 594 Phalloidin (Product # A12381). Panel d is a merged image showing cytoplasmic localization of AKT (pS473). Panel e shows competition with AKT (pS473) peptide. The images were captured at 20X magnification.



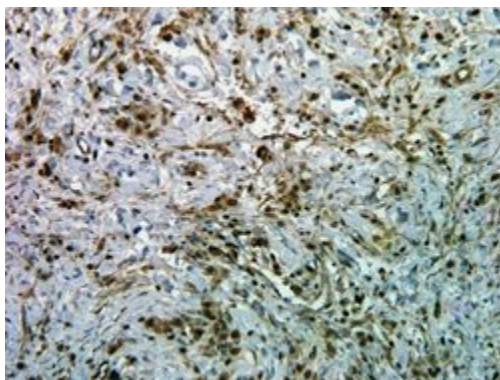
### Phospho-AKT1 (Ser473) Antibody (700392) in IF

Immunofluorescent analysis of Phospho-AKT pSer473 in mouse fibroblasts cells treated with 10  $\mu$ g/mL Insulin (top right) or untreated (top left) using a Phospho-AKT pSer473 recombinant rabbit monoclonal antibody (Product # 700392) at a dilution of 5  $\mu$ g/mL followed by detection using an Alexa Fluor 488-conjugated goat anti-rabbit secondary antibody at a dilution of 1:1000 and nuclei staining using Hoechst (blue). Signal is knocked down after incubation with the phosphopeptide used as an immunogen (bottom left) but not with the non-phosphopeptide (bottom right).



### Phospho-AKT1 (Ser473) Antibody (700392) in IHC (P)

Immunohistochemistry analysis of Phospho-AKT pSer473 in paraffin-embedded human esophagus carcinoma using a Phospho-AKT pSer473 monoclonal antibody (Product # 700392) at a dilution of 0.5  $\mu$ g/mL. Tissues were pretreated with EDTA and staining was visualized using DAB. Images were taken at a magnification of 20x. Results show nuclear and cytoplasmic staining in tumor cells.



View more figures on [thermofisher.com](https://thermofisher.com)

## 13 References

### Immunohistochemistry (2)

#### OncoTargets and therapy

##### Significance of PYK2 level as a prognosis predictor in patients with colon adenocarcinoma after surgical resection.

"700392 was used in Immunohistochemistry to investigate the clinical significance and mechanisms of PYK2 in colon adenocarcinoma."

Authors: Liu S,Chen L,Xu Y

**Species**  
Human

**Dilution**  
1:500

**Year**  
2020

#### BMC cancer

##### Snail heterogeneity in clear cell renal cell carcinoma.

"700392 was used in immunohistochemistry - paraffin section to study clear cell renal cell carcinoma and snail heterogeneity"

Authors: Zaldumbide L,Erramuzpe A,Guarch R,Pulido R,Cortés JM,López JI

**Species**  
Not Applicable

**Dilution**  
1:500

**Year**  
2016

### Western Blot (6)

#### Molecular metabolism

##### Programmed increases in LXR induced by paternal alcohol use enhance offspring metabolic adaptation to high-fat diet induced obesity.

"700392 was used in Western Blotting to study LXR-alpha in metabolic changes in children due to prenatal paternal alcohol consumption."

Authors: Chang RC,Thomas KN,Bedi YS,Golding MC

**Species**  
Mouse

**Dilution**  
Not Cited

**Year**  
2019

#### Epigenetics and chromatin

##### Preconception paternal alcohol exposure exerts sex-specific effects on offspring growth and long-term metabolic programming.

"700392 was used in Western Blotting to investigate the long-term impact of chronic preconception paternal alcohol use on offspring growth and metabolic programming."

Authors: Chang RC,Wang H,Bedi Y,Golding MC

**Species**  
Mouse  
Artificial Control

**Dilution**  
Not Cited  
Not Cited

**Year**  
2019

[View more WB references on thermofisher.com](#)

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