

# Phospho-Tau (Ser214) Polyclonal Antibody

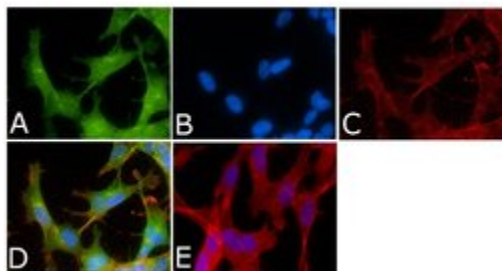
Product Details	
Size	100 µL
Species Reactivity	Human, Mouse, Rat
Published Species	Dog, Tag, Rat, Mouse, Human
Host/Isotope	Rabbit / IgG
Class	Polyclonal
Type	Antibody
Conjugate	Unconjugated
Immunogen	The antiserum was produced against a chemically synthesized phosphopeptide derived from the region of human Tau that contains serine 214. The sequence is conserved in many species including mouse, rat, rhesus monkey, baboon, cow and goat.
Form	Liquid
Purification	Antigen affinity chromatography
Storage buffer	Dulbecco's PBS, pH 7.3, with 1mg/mL BSA, 50% glycerol
Contains	0.05% sodium azide
Storage Conditions	-20°C
RRID	AB_2533740

Applications	Tested Dilution	Publications
Immunocytochemistry (ICC)	1 µg/mL	-
Immunofluorescence (IF)	1 µg/mL	-
Immunohistochemistry (Paraffin) (IHC (P))	1:20-1:200	2 Publications
Western Blot (WB)	1:1000	9 Publications
ELISA (ELISA)	-	1 Publication
Immunohistochemistry (IHC)	1:200	1 Publication
Immunoprecipitation (IP)	-	1 Publication
Miscellaneous PubMed (Misc)	1:500	2 Publications

## Product Images For Phospho-Tau (Ser214) Polyclonal Antibody

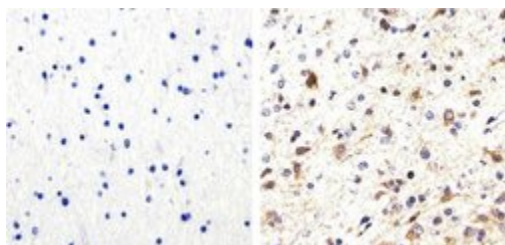
### Phospho-Tau (Ser214) Antibody (44-742G) in IF

Immunofluorescent analysis of Phospho-Tau pSer214 Antibody was done on 70% confluent log phase SHSY5Y cells. The cells were fixed with 4% paraformaldehyde for 15 minutes, permeabilized with 0.25% Triton™ X-100 for 10 minutes, and blocked with 5% BSA for 1 hour at room temperature. The cells were labeled with Phospho-Tau pSer214 Antibody (Product # 44-742G) at 1µg/mL 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 45 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 nuclear and cytoplasmic localization. Panel e is a no primary antibody control. The images were captured at 40X magnification.



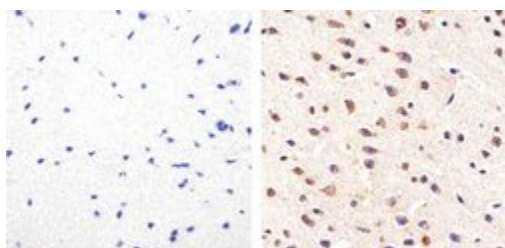
### Phospho-Tau (Ser214) Antibody (44-742G) in IHC (P)

Immunohistochemistry analysis of Phospho-Tau (pS214) showing staining in the cytoplasm of paraffin-embedded human astroglioma tissue (right) compared to a negative control without primary antibody (left). To expose target proteins, antigen retrieval was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H<sub>2</sub>O<sub>2</sub>-methanol for 15 min at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with a Phospho-Tau (pS214) polyclonal antibody (Product # 44-742G) diluted in 3% BSA-PBS at a dilution of 1:100 overnight at 4°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



### Phospho-Tau (Ser214) Antibody (44-742G) in IHC (P)

Immunohistochemistry analysis of Phospho-Tau (pS214) showing staining in the cytoplasm of paraffin-embedded mouse brain tissue (right) compared to a negative control without primary antibody (left). To expose target proteins, antigen retrieval was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H<sub>2</sub>O<sub>2</sub>-methanol for 15 min at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with a Phospho-Tau (pS214) polyclonal antibody (Product # 44-742G) diluted in 3% BSA-PBS at a dilution of 1:100 overnight at 4°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



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## 16 References

### Western Blot (9)

Frontiers in aging neuroscience

#### Relevance of Phosphorylation and Truncation of Tau to the Etiopathogenesis of Alzheimer's Disease.

"Published figure using Phospho-Tau (Ser214) polyclonal antibody (Product # 44-742G) in Western Blot"

Authors: Zhou Y, Shi J, Chu D, Hu W, Guan Z, Gong CX, Iqbal K, Liu F

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2019

Neurochemical research

#### Liraglutide Improves Water Maze Learning and Memory Performance While Reduces Hyperphosphorylation of Tau and Neurofilaments in APP/PS1/Tau Triple Transgenic Mice.

"44742G was used in western blot to elucidate how liraglutide affects disease and cognitive function in a mouse model of Alzheimer disease"

Authors: Chen S, Sun J, Zhao G, Guo A, Chen Y, Fu R, Deng Y

**Species**  
Mouse

**Dilution**  
1:1000

**Year**  
2017

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

### Immunohistochemistry (Paraffin) (2)

Journal of Alzheimer's disease : JAD

#### Human Truncated Tau Induces Mature Neurofibrillary Pathology in a Mouse Model of Human Tauopathy.

"44742G was used in immunohistochemistry - paraffin section to describe the molecular and behavioral features of R3m/4 transgenic mice expressing human non-mutated truncated tau protein and assess these mice as a model for Alzheimer's disease"

Authors: Zimova I, Brezovakova V, Hromadka T, Weisova P, Cubinkova V, Valachova B, Filipcik P, Jadhav S, Smolek T, Novak M, Zilka N

**Species**  
Mouse

**Dilution**  
Not Cited

**Year**  
2016

The Journal of comparative neurology

#### Tau hyperphosphorylation in synaptosomes and neuroinflammation are associated with canine cognitive impairment.

"44-742G was used in immunohistochemistry - paraffin section and western blot to study canine cognitive impairment syndrome."

Authors: Smolek T, Madari A, Farbakova J, Kandrac O, Jadhav S, Cente M, Brezovakova V, Novak M, Zilka N

**Species**  
Human  
Not Applicable  
Dog

**Dilution**  
Not Cited  
Not Cited  
1:1000

**Year**  
2016

### More applications with references on thermofisher.com

[IP \(1\)](#) [Misc \(2\)](#) [IHC \(1\)](#) [ELISA \(1\)](#)

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