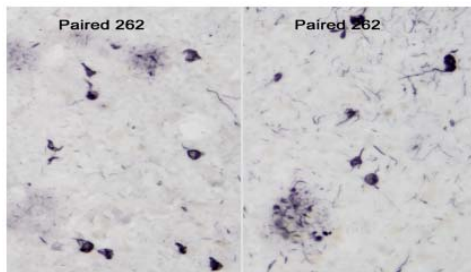


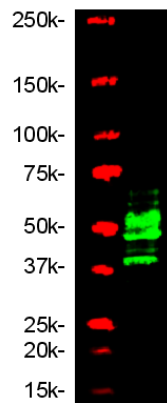


## Product Data Sheet

<b>Product Name:</b>	Anti-Tau (paired262)						
<b>Catalog Number:</b>	54974						
<b>Lot Number:</b>	See label on vial						
<b>Product Description:</b>	This polyclonal antibody is supplied as an epitope affinity purified rabbit IgG, 50 µg in 250 µl of 1x PBS (pH 7.4) containing 0.05% sodium azide.						
<b>Immunogen:</b>	Rabbit anti-Tau (paired262) polyclonal antibody was raised against a synthetic peptides corresponding to human Tau surrounding Serine 262 (KIGSTENL).						
<b>Species Reactivity:</b>	Species reactivity includes human, mouse, rat, bovine and zebrafish, while others remain unknown. The antibody was evaluated for specificity with dot blot and Western Blot. By dot blot, it only recognized the immunizing peptide, not other Tau sequence.						
<b>Application Notes:</b>	The following concentration ranges are recommended starting points for this product. Optimal working concentrations should be determined by the investigator for specific applications.						
	<table border="0"> <tr> <td>Dot blot:</td> <td>0.5 to 2.0 µg/ml</td> </tr> <tr> <td>Western Blot:</td> <td>0.5 to 2.0 µg/ml</td> </tr> <tr> <td>IHC:</td> <td>0.5 to 2.0 µg/ml</td> </tr> </table>	Dot blot:	0.5 to 2.0 µg/ml	Western Blot:	0.5 to 2.0 µg/ml	IHC:	0.5 to 2.0 µg/ml
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IHC:	0.5 to 2.0 µg/ml						



IHC of the upper layers (II/III) with neurofibrillary tangles (left), and the deeper layers with dystrophic neurites in plaques of mid temporal cortex of Alzheimer disease brains (right), stained with anti-Tau, paired 262 (cat# 54974, 54974-025), biotinylated secondary antibody avidin-biotin-HRP, visualization by heavy metal intensification of DAB, 40X objective (Courtesy of Dr. Patrick L. McGeer, Kinsmen Laboratory of Neurological Research, University of British Columbia, Vancouver, Canada).



Western blot analysis of TAU and TAU in mouse brain tissue lysate probed with the anti-TAU (paired262) antibody (cat#54974).

**Background:**

Tau is a collection of microtubule-associated proteins that is involved in microtubule assembly and stabilization (1). In adult human brain, 6 isoforms ranging between 352 and 441 amino acids in length are produced as a result of alternative RNA splicing (2, 3). The expression of tau isoforms is developmentally regulated, as only the smallest tau polypeptide is expressed in fetal brain. Hyperphosphorylated Tau is the major component of the paired helical filament of Alzheimer's Disease. Phosphorylation-dependent anti-Tau antibodies are used to identify specific amino acids that are phosphorylated in tau from normal brain and Alzheimer's disease brain. The Tau proteins, esp. in developing brain and in Alzheimer brains, were found to phosphorylate *in vivo* at many different sites (4).

**Storage:**

Store at 4 °C for up to one year. Avoid repeated freezing and thawing.

**References:**

1. Billingsley, M. et al. *Biochem J* **323**, 577 (1997).
2. Goedert, M. et al. *EMBO J* **8**, 393 (1989).
3. Goedert, M. et al. *Neuron* **3**, 519 (1989).
4. Cleveland, D. et al. *J Mol Biol* **116**, 207 (1977).

This product is for *in vitro* research use only.