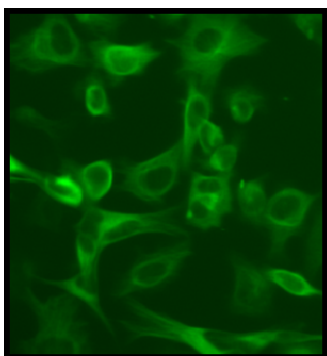


Tau CELL LINES

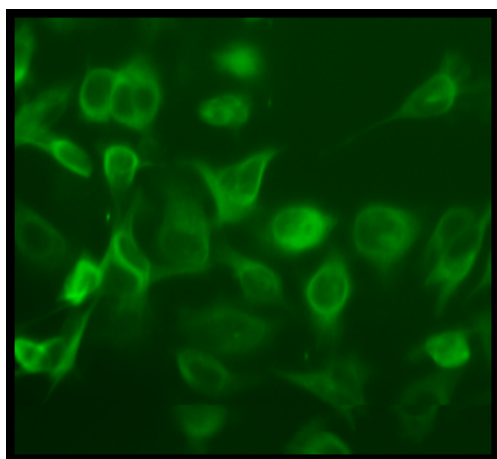
- tau 2N4R SHSY5Y CELL LINE -



Product Name:	tau 2N4R SH-SY5Y Cell Line
Catalog Number:	P30902
Host Cell Line:	SH-SY5Y Cell Line
Resistance:	G418
Format:	>3x10 ⁶ cells in Cryopreserved vials
Storage:	Liquid Nitrogen

About the cell line

The tau 2N4R SH-SY5Y Cell Line cell line has been developed by stable transfection with the 2N4R isoform of human tau expression plasmid. tau 2N4R SH-SY5Y Cell Line provides consistent levels of expression of tau protein.



This cell line is intended to be used as an “in vitro” model for research studies.

About tau

The human tau protein is implicated in a wide range of neurodegenerative “tauopathy” diseases, consisting of Alzheimer’s disease (AD) and frontotemporal lobar degeneration which includes progressive supranuclear palsy, corticobasal degeneration, Pick’s disease, and FTLD-tau (frontotemporal dementia with parkinsonism caused by MAPT mutations). Tau gene transcripts in the human brain undergo alternative splicing to yield 6 different tau protein isoforms that are expressed in different ratios in neurodegeneration which result in tau pathology of paired-helical filaments, neurofibrillary tangles, and tau fibrillar aggregates with detrimental microtubule destabilization.

Bibliography: Boyarko, B. et Hook, V. Tau Isoforms and Proteolysis for Production of Toxic Tau Fragments in Neurodegeneration. *Front. Neurosci.*, 21 October 2021. <https://doi.org/10.3389/fnins.2021.702788>

Immunofluorescence analysis

The detection of tau protein in the cells was carried out by immunofluorescence analysis with anti-Tau primary antibody (T9450, Sigma-Aldrich, 1:200) and a FITC secondary antibody.

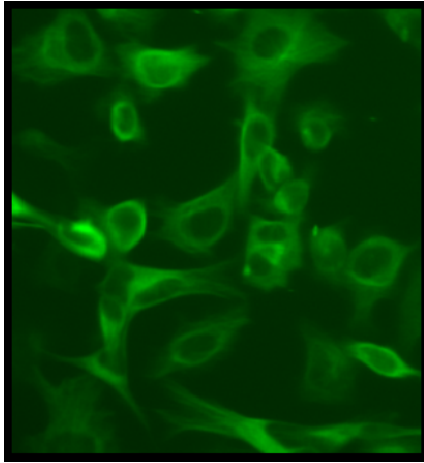


Figure 2. Immunofluorescence assay. The image in the upper panel shows the localization of 2N4R tau protein in SH-SY5Y cell line.

Western Blot

The presence of 2N4R tau protein was also analyzed by Western Blot.

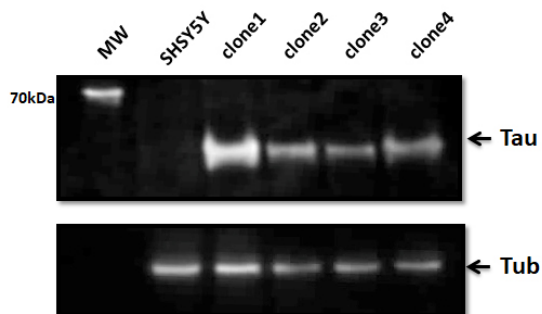


Figure 1. Tau 2R4N expressing clones analysis by Western-Blot. Total cellular extracts were analyzed by Western blot using anti-Tau antibody and anti-tubulin. SHSY5Y cells were used as negative control.

Quality Control

All cells are performance assayed and test negative for mycoplasma, bacteria, yeast and fungi. Cell viability, morphology and proliferative capacity are measured after recovery from cryopreservation. Innoprot guarantees stable expression for many generations and provides support for cell culture and visualization.

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