For Research Use Only

TUBB3-specific/TUJ1 Monoclonal antibody

Catalog Number:66375-1-Ig Featured Product 68 Publications

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Basic Information

Catalog Number:
66375-1-Ig

Size:
150ul , Concentration: 1000 ug/ml by Nanodrop;

Source:
Mouse

Isotype:
IgG1

GenBank Accession Number:
NM_001197181

GeneID (NCBI):
10381

Full Name:
tubulin, beta 3

Calculated MW:
55 kDa

Observed MW:
50-55 kDa

Purification Method:
Protein G purification

CloneNo.:
1F8G10

Recommended Dilutions:
WB 1:5000-1:50000
IHC 1:400-1:20000
IF-P 1:50-1:500
IF/ICC 1:125-1:500

Applications

Tested Applications:
WB, IHC, IF/ICC, IF-P, FC (Intra), ELISA

Cited Applications:
WB, IHC, IF

Species Specificity:
human, mouse, rat, pig, rabbit, chicken

Cited Species:
human, mouse, rat, chicken

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : SH-SY5Y cells, fetal human brain tissue, HEK-293 cells, PC-12 cells, Neuro-2a cells, Pig brain, Rabbit brain, Rat brain Mouse brain, Chicken brain

IHC : human cerebellum tissue, mouse brain tissue, mouse cerebellum tissue

IF-P : rat brain tissue, Retinal organoids, mouse brain tissue, human neuron

IF/ICC : iPS cells,

Background Information

TUBB3, the class III β tubulin or Tuj1, is selectively expressed in testis and neurons of the central and peripheral nervous system. It has been widely used as a marker for neurons. Aberrant expression of TUBB3 has also been found in various tumors of non-neural origin and can be used as a biomarker for cancer aggressiveness and a marker for the tendency to respond poorly to chemotherapy. This antibody is specific to TUBB3 but not cross-react with other tubulin isoforms.

Notable Publications

Author	Pubmed ID	Journal	Application
Ji-Qiang Fu	30264483	CNS Neurosci Ther	IF
Shuai Yu	34616727	Front Cell Dev Biol	WB
Shuai Huang	31660066	Theranostics	IF

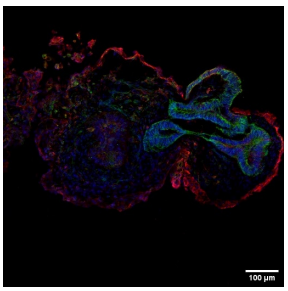
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

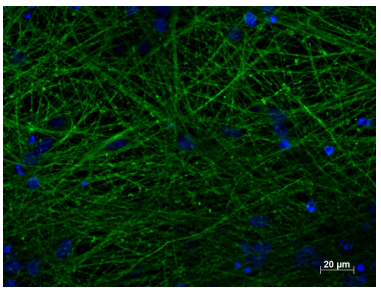
*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

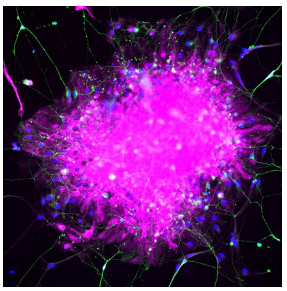
Selected Validation Data



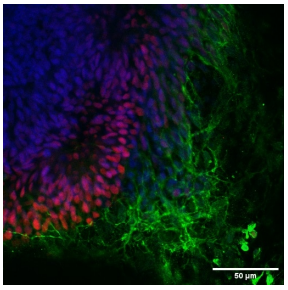
Retinal organoids (day 60) generated from human induced pluripotent stem cells (iPSCs) and fixed with 4% PFA. Stained for Tubulin beta 3/TUJ1 using 66375-1-Ig at 1:500 dilution (green) and Cytokeratin 19 using 10712-1-AP at 1:200 (red). Nuclear stain DAPI (blue). Scale bar = 100 µm. Data generated by Alessandro Bellapianta at Johannes Kepler Universitat, Austria.



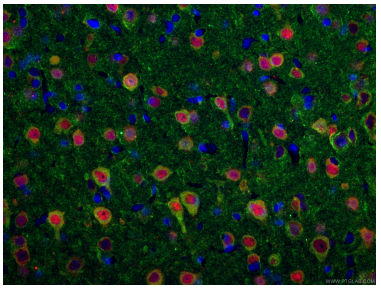
Immunofluorescent staining of TUBB3 (66375-1-Ig, 1:250) with 4% PFA fixed control hiPSC derived neuronal cultures (35 days old). (Green: TUBB3; Blue: DAPI). Provided by BioTalentum Ltd., Hungary.



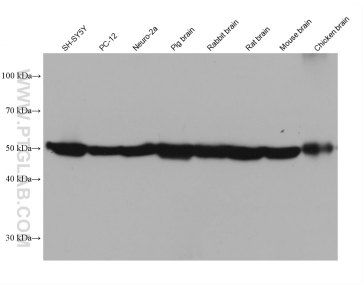
Immunofluorescence analysis of human pluripotent stem cell-derived astrocytes with S100β (15146-1-AP) at 1/200 (Magenta) and neurons with TUJ1 (66375-1-Ig) at 1:500 (Green). The sample was fixed with 4% Paraformaldehyde and permeabilized with 0.3% Triton X-100. Alexa Fluor 488-conjugated goat anti-mouse IgG (1/500) and Alexa Fluor 594-conjugated goat anti-rabbit IgG (1/500) were used as the secondary antibodies. Nuclei were counterstained with



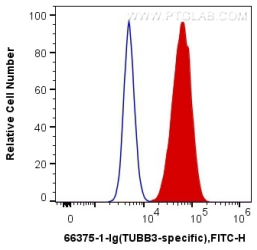
Retinal organoids (day 30) generated from human induced pluripotent stem cells (iPSCs) and fixed with 4% PFA. Stained for Tubulin beta 3/TUJ1 using 66375-1-Ig at 1:500 dilution (green) and PAX6 (12323-1-AP) at 1:500. Nuclear stain DAPI (blue). Scale bar = 50 µm. Data generated by Alessandro Bellapianta at Johannes Kepler Universitat, Austria.



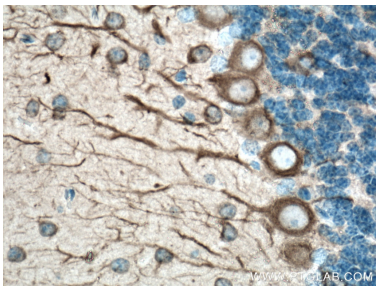
Immunofluorescent analysis of (4% PFA) fixed rat brain tissue using 66375-1-Ig (TUBB3-specific antibody), at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). The section was co-stained with 26975-1-AP (NeuN antibody, red).



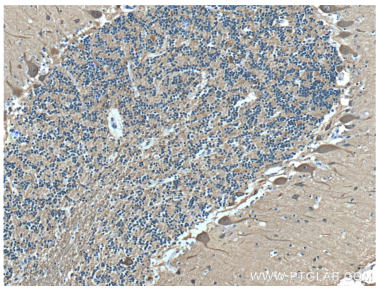
Various lysates were subjected to SDS PAGE followed by western blot with 66375-1-Ig (TUBB3-specific antibody) at dilution of 1:49000 incubated at room temperature for 1.5 hours.



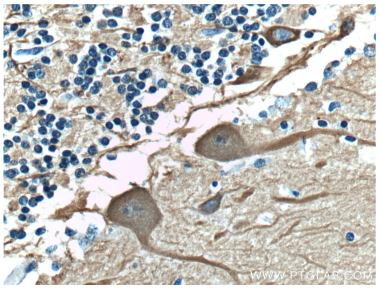
1X10^6 SH-SY5Y cells were intracellularly stained with 0.2 ug Anti-Human TUBB3-specific (66375-1-Ig, Clone:1F8G10) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.2 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).

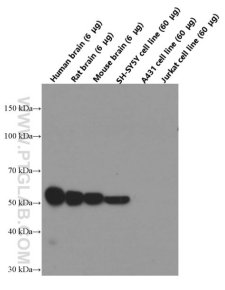


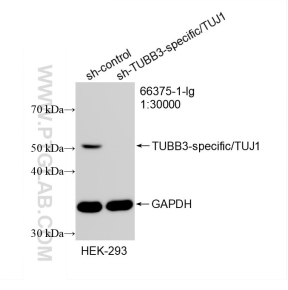
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 66375-1-Ig (TUBB3-specific antibody) at dilution of 1:200 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human cerebellum tissue slide using 66375-1-Ig (TUBB3-specific Antibody) at dilution of 1:400 (under 10x lens).



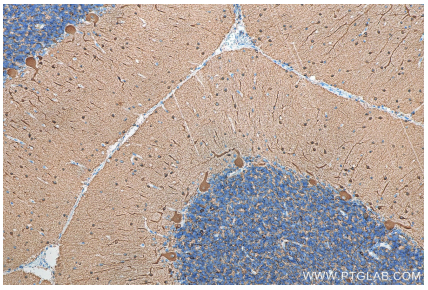




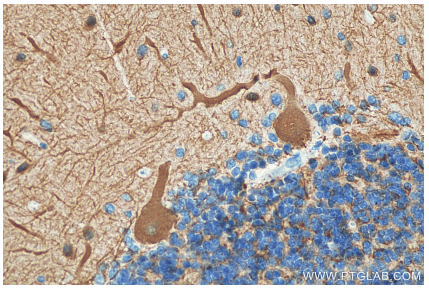
Immunohistochemical analysis of paraffin-embedded human cerebellum tissue slide using 66375-1-Ig (TUBB3-specific Antibody) at dilution of 1:400 (under 40x lens).

Western blot analysis of TUBB3 in various tissues and cell lines with 66375-1-Ig (TUBB3-specific Antibody) at dilution of 1:40,000 incubated at room temperature for 1.5 hours.

WB result of TUBB3-specific/TUJ1 antibody (66375-1-Ig; 1:30000; incubated at room temperature for 1.5 hours) with sh-Control and sh-TUBB3-specific/TUJ1 transfected HEK-293 cells.



Immunohistochemical analysis of paraffin-embedded human cerebellum tissue slide using 66375-1-Ig (TUBB3-specific antibody) at dilution of 1:20000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human cerebellum tissue slide using 66375-1-Ig (TUBB3-specific antibody) at dilution of 1:20000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).