Datasheet for ABIN93911

anti-TUBB3 antibody (N-Term)

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Overview

Quantity:	0.1 mg
Target:	TUBB3
Binding Specificity:	N-Term
Reactivity:	Human, Mouse, Rat, Dog, Pig
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This TUBB3 antibody is un-conjugated
Application:	Western Blotting (WB), Flow Cytometry (FACS), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunocytochemistry (ICC)

Product Details

Immunogen:	Peptide (C) 441-448 coupled to maleimide-activated keyhole limpet hemocyanin via cysteine added to the N-terminus of the neuron-specific peptide.
Clone:	TU-20
Isotype:	IgG1
Specificity:	The antibody TU-20 recognizes C-terminal peptide sequence ESESQGPK (aa 441-448) of neuron-specific human betaIII-tubulin.
Cross-Reactivity (Details):	Broad species reactivity
Purification:	Purified by protein-A affinity chromatography.
Purity:	> 95 % (by SDS-PAGE)

Target Details

Target:	TUBB3
Alternative Name:	betaIII-tubulin (TUBB3 Products)
Background:	Tubulin beta 3,The betaIII isoform of tubulin is present dominantly in cells of neuronal origin and it is one of the earliest markers of neuronal differentiation. It is regarded as a specific probe for the cells of neuronal origin as well as for the tumours originating from these cells. The betaIII-tubulin is most abundant in cells of neuronal origin, but was also detected in Sertoli cells of the testis and transiently in non-neuronal embryonic tissues.,TUBB3
Gene ID:	10381
UniProt:	Q13509
Pathways:	Microtubule Dynamics, M Phase

Application Details

Application Notes:	Western blotting: Recommended dilution: 1-2 µg/mL, positive control: porcine brain lysate, negative control: HPB-ALL human peripheral blood leukemia cell line, reducing conditions. Immunohistochemistry (paraffin sections): Recommended dilution: 10 µg/mL, standard ABC technique (DAB+), pretreatment: 0.1 % pepsin (trypsin) in 0.1 M HCl, incubation 30 min in RT, or high temperature citrate buffer antigen retrieval, positive tissue: neuronal tissue. Immunocytochemistry: Positive material: Neuro2a mouse neuroblastoma cell line. Flow cytometry: Recommended dilution: 1-4 µg/mL. Intracellular staining.
Restrictions:	For Research Use only

Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	**Do not freeze.**
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

Product cited in:

Letellier, Síber, Chamma, Saphy, Papasideri, Tessier, Sainlos, Czöndör, Thoumine: "A unique intracellular tyrosine in neuroligin-1 regulates AMPA receptor recruitment during synapse differentiation and potentiation." in: **Nature communications**, Vol. 9, Issue 1, pp. 3979, (2019) (PubMed).

Gudernova, Balek, Varecha, Kucerova, Kunova Bosakova, Fafilek, Palusova, Uldrijan, Trantirek, Krejci: "Inhibitor repurposing reveals ALK, LTK, FGFR, RET and TRK kinases as the targets of AZD1480." in: **Oncotarget**, Vol. 8, Issue 65, pp. 109319-109331, (2017) (PubMed).

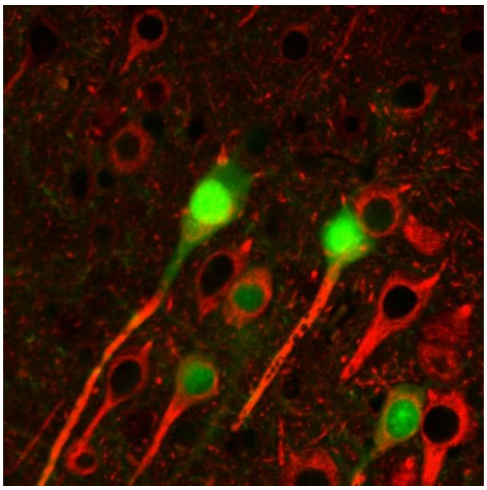
Síber, Liliom, Morales, Ignácz, Rátkai, Ellwanger, Link, Szűcs, Hausser, Schlett: "Ras and Rab interactor 1 controls neuronal plasticity by coordinating dendritic filopodial motility and AMPA receptor turnover." in: **Molecular biology of the cell**, Vol. 28, Issue 2, pp. 285-295, (2017) (PubMed).

Katsetos, Draber, Kavallaris: "Targeting βIII-tubulin in glioblastoma multiforme: from cell biology and histopathology to cancer therapeutics." in: **Anti-cancer agents in medicinal chemistry**, Vol. 11, Issue 8, pp. 719-28, (2012) (PubMed).

Gun?ova: "The neurodegenerative process in a neurotoxic rat model and in patients with Huntington's disease: Histopathological parallels and differences." in: **Acta histochemica**, (2011) (PubMed).

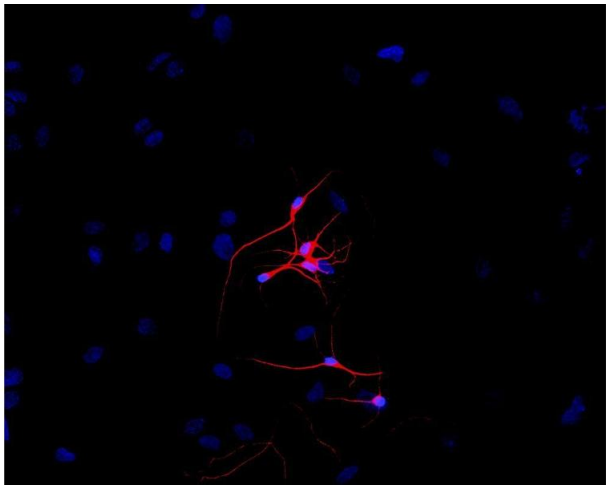
There are more publications referencing this product on: Product page

Images



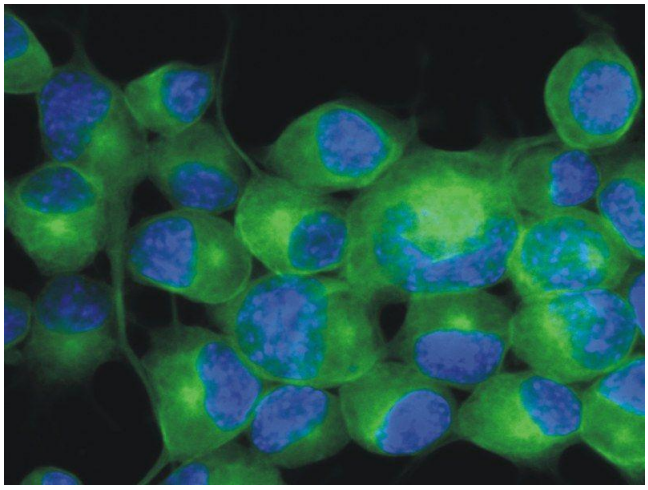
Immunohistochemistry (Paraffin-embedded Sections)

Image 1. Immunohistochemistry staining of betaIII tubulin (red) in tissue sections of murine brain expressing GFP in some of its neurons (green). Mouse monoclonal antibody TU-20 (anti-betaIII tubulin) was detected with goat anti-mouse IgG1 conjugated with Alexa Fluor 555.



Immunofluorescence

Image 2. Immunofluorescence staining of P-19 mouse embryonal carcinoma cell line stimulated to neuronal differentiation by retinoic acid. 2A - Microtubules decorated with neuron-specific anti-betaIII-tubulin (; red). 2B - Merged image of co-staining with anti-beta-tubulin (TU-06; green). Superposition of red and green colours provided yellow staining. Nuclei were stained with DNA-binding dye (blue). Fig. 2A Immunofluorescence staining (mouse embryonal carcinoma cells) Immunofluorescence staining (mouse embryonal carcinoma cells)



Immunofluorescence

Image 3. Immunofluorescence staining (mouse neuroblastoma cells) Immunofluorescence staining of Neuro2a mouse neuroblastoma cell line using anti-betaIII-tubulin (TU-20 ; green; 3 µg/ml). Nuclei were stained with DAPI (blue).

Please check the product details page for more images. Overall 9 images are available for ABIN93911.