Datasheet for ABIN93912

anti-TUBB3 antibody (N-Term) (FITC)

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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 conjugated to FITC
Application:	Flow Cytometry (FACS), 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 antibody is conjugated with fluorescein isothiocyanate (FITC) under optimum conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.

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:	Flow cytometry: Recommended dilution: 1-3 µg/mL. Intracellular staining.
Comment:	The purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC.
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.** Avoid prolonged exposure to light.
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze.

Publications

Product cited in:	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).

Jirásek, Cipro, Musilová, Kubecová, Mandys: "Expression of class III beta-tubulin in colorectal carcinomas: an immunohistochemical study using TU-20 & TuJ-1 antibody." in: **The Indian journal of medical research**, Vol. 129, Issue 1, pp. 89-94, (2009) (PubMed).

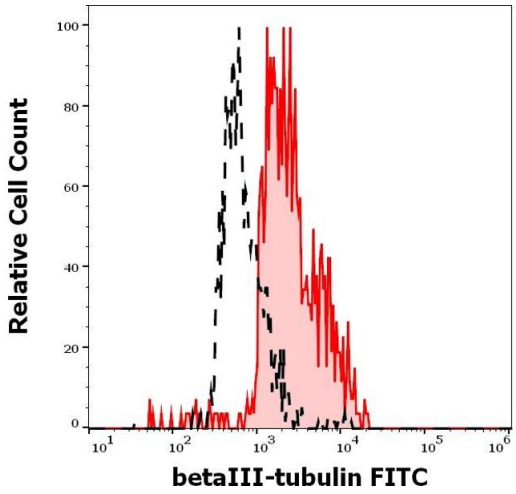
Theodorou, Dalembert, Heffelfinger, White, Weissman, Corcoran, Snyder: "A high throughput embryonic stem cell screen identifies Oct-2 as a bifunctional regulator of neuronal differentiation." in: **Genes & development**, Vol. 23, Issue 5, pp. 575-88, (2009) (PubMed).

Dráberová, Del Valle, Gordon, Marková, Smejkalová, Bertrand, de Chadarévian, Agamanolis, Legido, Khalili, Dráber, Katsetos: "Class III beta-tubulin is constitutively coexpressed with glial fibrillary acidic protein and nestin in midgestational human fetal astrocytes: implications for phenotypic identity." in: **Journal of neuropathology and experimental neurology**, Vol. 67, Issue 4, pp. 341-54, (2008) (PubMed).

Katsetos, Dráberová, Smejkalová, Reddy, Bertrand, de Chadarévian, Legido, Nissanov, Baas, Dráber: "Class III beta-tubulin and gamma-tubulin are co-expressed and form complexes in human glioblastoma cells." in: **Neurochemical research**, Vol. 32, Issue 8, pp. 1387-98, (2007) (PubMed).

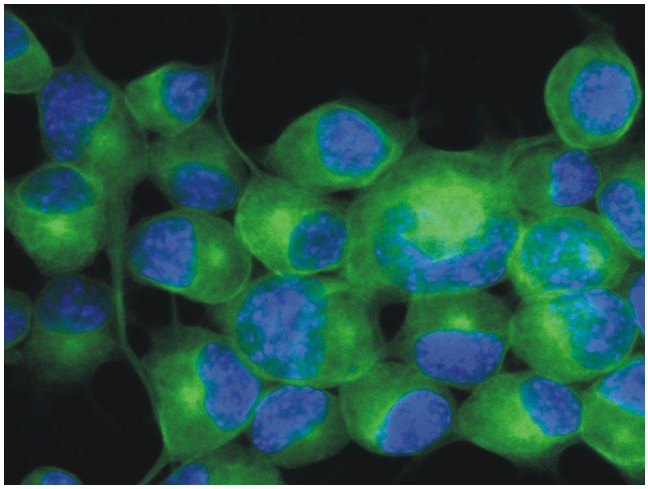
There are more publications referencing this product on: Product page

Images



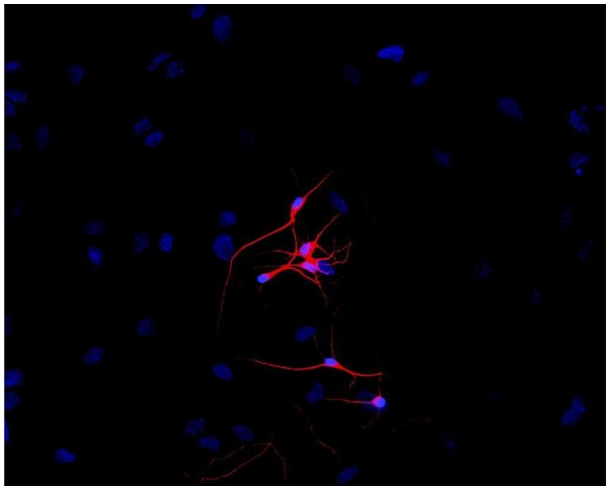
Flow Cytometry

Image 1. Separation of MCF-7 cells stained using anti-human betaIII-Tubulin (TU-20) FITC antibody (10 µL reagent per million cells in 100 µL of cell suspension, red-filled) from MCF-7 cells stained using mouse IgG1 isotype control (MOPC-21) FITC antibody (concentration in sample 15 µ g/mL, same as betaIII-Tubulin FITC concentration, black-dashed) in flow cytometry analysis (intracellular staining) of MCF-7 cell suspension.



Immunofluorescence

Image 2. 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).



Immunofluorescence

Image 3. 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)

Please check the product details page for more images. Overall 6 images are available for ABIN93912.

