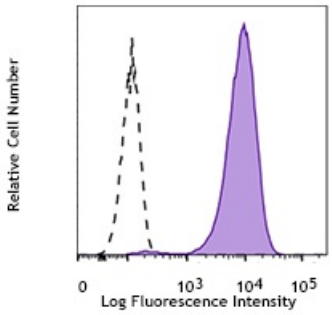
SONY

Product Data Sheet

PE/Cyanine7 anti-Tubulin β 3 (TUBB3)

Catalog # / Size:	4606085 / 25 tests 4606090 / 100 tests
Clone:	TUJ1
Isotype:	Mouse IgG2a, κ
Immunogen:	This antibody was raised against microtubules derived from rat brain.
Reactivity:	Human, Mouse, Rat
Preparation:	The antibody was purified by affinity chromatography and conjugated with PE/Cyanine7 under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA)
Concentration:	Lot-specific



Human lung adenocarcinoma cell line A549 was treated with Fixation Buffer (Cat No. 420801) and Intracellular Staining Permeabilization Wash Buffer (Cat No. 421002), and then stained with anti-Tubulin β 3 (TUBB3) (clone TUJ1) PE/Cyanine7 (filled histogram) or mouse IgG2a, κ PE/Cyanine7 isotype control (open histogram).

Applications:

Applications:	Intracellular Staining for Flow Cytometry
Recommended Usage:	Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes:	Additional reported applications (for the relevant formats) include: flow cytometry[4], immunofluorescence microscopy[1-5,7], immunohistochemistry[5,7], and Western blotting[8]. This antibody is well characterized and highly reactive to neuron specific Class III β-tubulin (βIII). TUJ1 does not identify β-tubulin found in glial cells. TUJ1 recognizes an epitope located within the last 15 C-terminal residues[8].

Application References:

1. Nishimura K, *et al.* 2017. *PLoS One*. 12(1): e0170568. **(ICC)**
2. Jongbloets J, *et al.* 2017. *Nat Commun.* 8: 14666. **(ICC)** PubMed
3. Liu W.J, *et al.* 2015. *Eur J Histochem.* 59(1): 2464. **(ICC)** PubMed
4. Chintalapudi SR, *et al.* 2016. *Front Aging* Neursci. 8:93. **(FC, ICC)** PubMed
5. Ambasudhan R, *et al.* 2011. *Cell Stem Cell*. 9(2):113. **(IHC, ICC)**
6. Hu X., *et al.* 2006. *Nature Neuroscicene*. 9(12):1520. **(WB)** PubMed
7. Zechner D., *et al.* 2003. *Develop Biology*. 258(2):406. **(ICC, IHC)**
8. Lee MK, *et al.* 1990. *Proc. Natl. Acad. Sci. USA* 18:7195. **(WB)**

Description: Tubulin is the main component of microtubules. In adults, tubulin beta 3 (TUBB3) is primarily expressed in neurons and is commonly used as a neuronal marker. It plays an important role in neuronal cell proliferation and differentiation. Mutations in this gene cause congenital fibrosis of the type 3 extraocular muscles. Tubulin beta 3 (TUBB3) is also found in a wide range of tumors. Studies indicate that it is a predictive and prognostic marker in various tumors.

Antigen References:

1. Zhao X, *et al.* 2017. Med Sci Monit. 22: 3915.
2. Lebok P, *et al*. 2016. Oncol Lett. 11(3):1987.
3. Du J, *et al.* 2015. BMC Cancer. 15:536. PubMed
4. Rogue DM., *et al*. 2013. Clin Exp Metastasis. 31(1): 101.
5. Ploussard G, *et al.* 2010. Cancer Res. 70(22):9253. PubMed