

## ARG65321 anti-beta III Tubulin antibody

Package: 100 µg, 50 µg  
Store at: -20°C

### Summary

Product Description	Goat Polyclonal antibody recognizes TUBB3
Tested Reactivity	Hu
Predict Reactivity	Ms, Rat, Cow, Pig
Tested Application	WB
Specificity	This antibody is expected to recognize isoform 1 (NP_006077.2) only.
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Target Name	beta III Tubulin
Species	Human
Immunogen	Peptide with sequence C-DPSGNYVGDSD, from the internal region (near N terminus) of the protein sequence according to NP_006077.2.
Conjugation	Un-conjugated
Alternate Names	CDCBM1; Tubulin beta-4 chain; Tubulin beta-3 chain; CFEOM3A; Tubulin beta-III; TUBB4; CDCBM; CFEOM3; FEOM3; beta-4

### Application Instructions

Application table	Application	Dilution
	WB	1 - 3 µg/ml

**Application Note** WB: Recommend incubate at RT for 1h.  
\* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

### Properties

Form	Liquid
Purification	Purified from goat serum by antigen affinity chromatography.
Buffer	Tris saline (pH 7.3), 0.02% Sodium azide and 0.5% BSA.
Preservative	0.02% Sodium azide
Stabilizer	0.5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed

before use.

Note

For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

Database links

[GeneID: 10381 Human](#)

[Swiss-port # Q13509 Human](#)

Background

This gene encodes a class III member of the beta tubulin protein family. Beta tubulins are one of two core protein families (alpha and beta tubulins) that heterodimerize and assemble to form microtubules. This protein is primarily expressed in neurons and may be involved in neurogenesis and axon guidance and maintenance. Mutations in this gene are the cause of congenital fibrosis of the extraocular muscles type 3. Alternate splicing results in multiple transcript variants. A pseudogene of this gene is found on chromosome 6. [provided by RefSeq, Oct 2010]

Highlight

Related Antibody Duos and Panels:

[ARG30008 Neuron Development Marker Antibody Duo \(Nestin, Tuj1\)](#)

Related products:

[beta III Tubulin antibodies;](#) [beta III Tubulin Duos / Panels;](#) [Anti-Goat IgG secondary antibodies;](#)

Related news:

[Neuronal Development Marker](#)

[Astrocyte-to-neuron conversion for Parkinson's disease treatment](#)

Research Area

Controls and Markers antibody; Neuroscience antibody; Signaling Transduction antibody; Neuron Development Study antibody; Neuronal Cytoskeletal antibody; Neurite Marker antibody

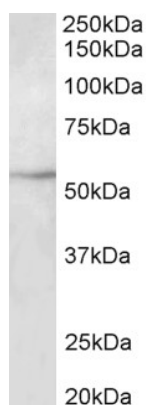
Calculated Mw

50 kDa

PTM

Some glutamate residues at the C-terminus are polyglutamylated, resulting in polyglutamate chains on the gamma-carboxyl group (PubMed:26875866). Polyglutamylation plays a key role in microtubule severing by spastin (SPAST). SPAST preferentially recognizes and acts on microtubules decorated with short polyglutamate tails: severing activity by SPAST increases as the number of glutamates per tubulin rises from one to eight, but decreases beyond this glutamylation threshold (PubMed:26875866). Some glutamate residues at the C-terminus are monoglycylated but not polyglycylated due to the absence of functional TTL10 in human. Monoglycylation is mainly limited to tubulin incorporated into axonemes (cilia and flagella). Both polyglutamylated and monoglycylated tubulin can coexist on the same protein on adjacent residues, and lowering glycylation levels increases polyglutamylated, and reciprocally. The precise function of monoglycylation is still unclear (Probable). Phosphorylated on Ser-172 by CDK1 during the cell cycle, from metaphase to telophase, but not in interphase. This phosphorylation inhibits tubulin incorporation into microtubules.

## Images



ARG65321 anti-TUBB3 antibody WB image

Western blot: 35 µg of HepG2 cell lysate (in RIPA buffer) stained with ARG65321 anti-Tubulin beta III antibody at 2 µg/ml dilution and incubated at RT for 1 hour.