

Product datasheet

Anti-beta Tubulin antibody [BT7R] (HRP) ab173840

1 Image

Overview

Product name	Anti-beta Tubulin antibody [BT7R] (HRP)
Description	Mouse monoclonal [BT7R] to beta Tubulin (HRP)
Host species	Mouse
Conjugation	HRP
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Mouse, Rat, Rabbit, Chicken, Human, Non human primates
Immunogen	Synthetic peptide corresponding to Human beta Tubulin (N terminal) conjugated to Keyhole Limpet Haemocyanin (KLH). Database link: P07437
Positive control	A431, U2OS, 293T, Jurkat, HeLa, COS7, C2C12 and NRK cell lysates.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Clonality	Monoclonal
Clone number	BT7R
Isotype	IgG2a

Applications

Our [Abpromise guarantee](#) covers the use of **ab173840** in the following tested applications.

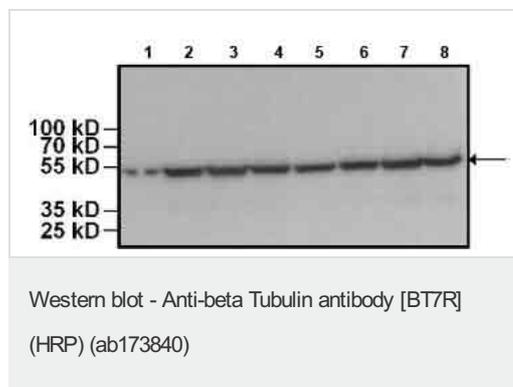
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/2000. Predicted molecular weight: 50 kDa.

Target

Function	Tubulin is the major constituent of microtubules. It binds two moles of GTP, one at an exchangeable site on the beta chain and one at a non-exchangeable site on the alpha chain.
Tissue specificity	Ubiquitously expressed with highest levels in spleen, thymus and immature brain.
Involvement in disease	Cortical dysplasia, complex, with other brain malformations 6 Skin creases, congenital symmetric circumferential, 1
Sequence similarities	Belongs to the tubulin family.
Domain	The highly acidic C-terminal region may bind cations such as calcium.
Post-translational modifications	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 polyglutamylation and monoglycylation can coexist on the same protein on adjacent residues, and lowering glycylation levels increases polyglutamylation, and reciprocally. The precise function of monoglycylation is still unclear. 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.
Cellular localization	Cytoplasm, cytoskeleton.

Images



All lanes : Anti-beta Tubulin antibody [BT7R] (HRP) (ab173840) at 1/1000 dilution

Lane 1 : A431 cell lysate

Lane 2 : U2OS cell lysate

Lane 3 : 293T cell lysate

Lane 4 : Jurkat cell lysate

Lane 5 : HeLa cell lysate

Lane 6 : COS7 cell lysate

Lane 7 : C2C12 cell lysate

Lane 8 : NRK cell lysate

Lysates/proteins at 50 µg per lane.

Developed using the ECL technique.

Predicted band size: 50 kDa

4-20% Tris-HCl polyacrylamide gel.

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