


HRP Anti-beta III Tubulin antibody [2G10] ab196638

敲除验证

4 图像

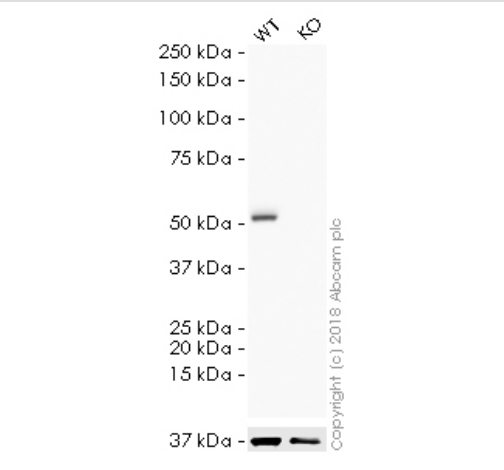
概述

产品名称	HRP Anti-beta III Tubulin抗体[2G10]
描述	HRP小鼠单克隆抗体[2G10] to beta III Tubulin
宿主	Mouse
偶联物	HRP
经测试应用	适用于: IHC-P, WB
种属反应性	与反应: Mouse, Rat, Human 预测可用于: Cow, Common marmoset 
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: Human, mouse and rat brain tissue lysates. IHC: Human cerebellum tissue.
常规说明	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark.
存储溶液	pH: 7.40 Preservative: 0.1% Proclin 300 Solution Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS
纯度	Affinity purified
克隆	单克隆
克隆编号	2G10

同种型	IgG2a	
应用		
The Abpromise guarantee Abpromise™ 承诺保证使用ab196638于以下的经测试应用		
“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。		
应用	Ab评论	说明
IHC-P		Use a concentration of 100 - 500 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		1/5000. Detects a band of approximately 50 kDa (predicted molecular weight: 50 kDa).
靶标		
功能	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. TUBB3 plays a critical role in proper axon guidance and mantainance.	
组织特异性	Expression is primarily restricted to central and peripheral nervous system.	
疾病相关	Defects in TUBB3 are the cause of congenital fibrosis of extraocular muscles type 3A (CFEOM3A) [MIM:600638]. A congenital ocular motility disorder marked by restrictive ophthalmoplegia affecting extraocular muscles innervated by the oculomotor and/or trochlear nerves. It is clinically characterized by anchoring of the eyes in downward gaze, ptosis, and backward tilt of the head. Congenital fibrosis of extraocular muscles type 3 presents as a non-progressive, autosomal dominant disorder with variable expression. Patients may be bilaterally or unilaterally affected, and their oculo-motility defects range from complete ophthalmoplegia (with the eyes fixed in a hypo- and exotropic position), to mild asymptomatic restrictions of ocular movement. Ptosis, refractive error, amblyopia, and compensatory head positions are associated with the more severe forms of the disorder. In some cases the ocular phenotype is accompanied by additional features including developmental delay, corpus callosum agenesis, basal ganglia dysmorphism, facial weakness, polyneuropathy.	
序列相似性	Belongs to the tubulin family.	
结构域	The highly acidic C-terminal region may bind cations such as calcium.	
翻译后修饰	Some glutamate residues at the C-terminus are polyglutamylated. This modification occurs exclusively on glutamate residues and results in polyglutamate chains on the gamma-carboxyl group. Also monoglycylated but not polyglycylated due to the absence of functional TTLL10 in human. Monoglycylation is mainly limited to tubulin incorporated into axonemes (cilia and flagella) whereas glutamylation is prevalent in neuronal cells, centrioles, axonemes, and the mitotic spindle. Both modifications can coexist on the same protein on adjacent residues, and lowering glycylation levels increases polyglutamylated, and reciprocally. The precise function of such modifications is still unclear but they regulate the assembly and dynamics of axonemal microtubules.	
细胞定位	Cytoplasm > cytoskeleton.	



Western blot - HRP Anti-beta III Tubulin antibody [2G10] (ab196638)

All lanes : HRP Anti-beta III Tubulin antibody [2G10] (ab196638) at 1/5000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate

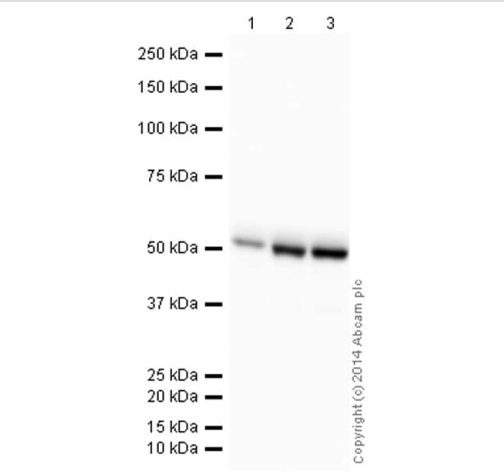
Lane 2 : TUBB3 (beta III Tubulin) knockout HAP1 whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 50 kDa

Exposure time: 2 minutes

ab196638 was shown to specifically react with beta III Tubulin in wild-type HAP1 cells as signal was lost in TUBB3 (beta III Tubulin) knockout cells. Wild-type and TUBB3 (beta III Tubulin) knockout samples were subjected to SDS-PAGE. Ab196638 and [ab184095](#) (Mouse monoclonal [mAbcam 9484] to GAPDH - Loading Control (Alexa Fluor® 680) loading control) were incubated overnight at 4°C at 1/5000 dilution and 1/1000 dilution respectively. The loading control was imaged using the Licor Odyssey CLx prior to blots being developed with ECL technique.



Western blot - HRP Anti-beta III Tubulin antibody [2G10] (ab196638)

All lanes : HRP Anti-beta III Tubulin antibody [2G10] (ab196638) at 1/5000 dilution

Lane 1 : Brain (Human) Tissue Lysate - adult normal tissue

Lane 2 : Brain (Mouse) Tissue Lysate

Lane 3 : Brain (Rat) Tissue Lysate

Lysates/proteins at 10 µg per lane.

Developed using the ECL technique.

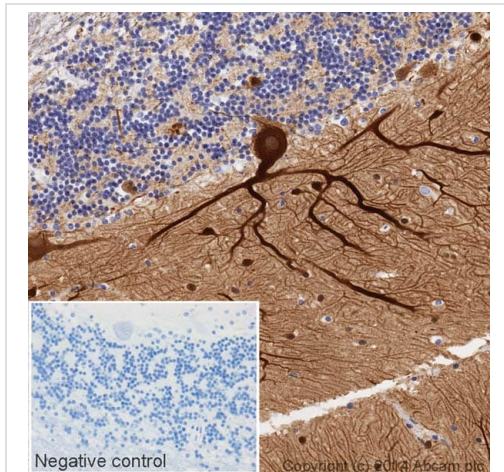
Performed under reducing conditions.

Predicted band size: 50 kDa

Observed band size: 50 kDa

Exposure time: 2 seconds

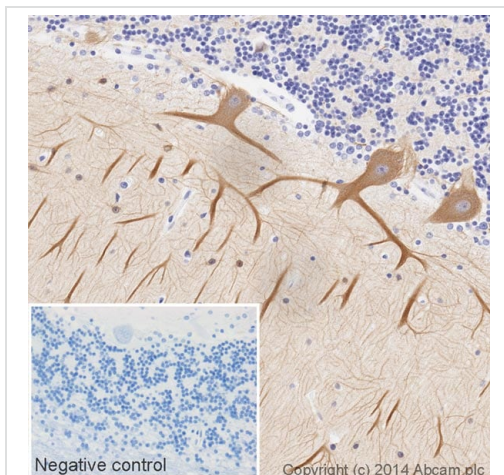
This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab196638 overnight at 4°C. Antibody binding was visualised using ECL development solution **ab133406**.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - HRP Anti-beta III Tubulin antibody [2G10] (ab196638)

IHC image of beta III Tubulin staining in a section of formalin-fixed paraffin-embedded normal human cerebellum tissue, performed on a Leica BOND. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab196638 at 1/100 dilution, for 15 mins at room temperature. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset negative control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - HRP Anti-beta III Tubulin antibody [2G10] (ab196638)

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