## abcam

### Product datasheet

# HRP Anti-beta III Tubulin antibody [EP1569Y] - Neuronal Marker ab190574



リコンピナント

RabMAb

#### 画像数 4

#### 製品の概要

製品名 HRP Anti-beta III Tubulin antibody [EP1569Y] - Neuronal Marker

製品の詳細 HRP Rabbit monoclonal [EP1569Y] to beta III Tubulin - Neuronal Marker

由来種 Rabbit 標識 HRP

アプリケーション 適用あり: WB

種交差性 交差種: Mouse, Rat, Human

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

ポジティブ・コントロール WB: HeLa and PC12 whole cell lysates. Mouse brain, mouse spinal cord, rat brain and rat spinal

cord tissue lysates.

特記事項 Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit

monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

#### 製品の特性

製品の状態 Liquid

保存方法 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.

**バッファー** pH: 7.40

Preservative: 0.1% Proclin 300 Solution

Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS

精製度 Protein A purified

**ポリ/モノ** モノクローナル **ウローン名** EP1569Y

アイソタイプ IgG

アプリケーション

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#### The Abpromise guarantee

Abpromise保証は、次のテスト済みアプリケーションにおけるab190574の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		1/3000 - 1/10000. Detects a band of approximately 52 kDa (predicted molecular weight: 50 kDa).

#### ターゲット情報

機能

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.

組織特異性

関連疾患

Expression is primarily restricted to central and peripheral nervous system.

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.

配列類似性

ドメイン The h

翻訳後修飾

Belongs to the tubulin family.

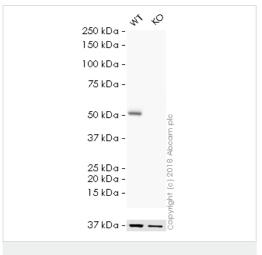
The highly acidic C-terminal region may bind cations such as calcium.

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 polyglutamylation, and reciprocally. The precise function of such modifications is still unclear but they regulate the assembly and dynamics of axonemal microtubules.

細胞内局在

Cytoplasm > cytoskeleton.

#### 画像



Western blot - HRP Anti-beta III Tubulin antibody [EP1569Y] - Neuronal Marker (ab190574)

Lane 1 : HRP Anti-beta III Tubulin antibody [EP1569Y] - Neuronal Marker (ab190574) at 20 µg

Lane 2: HRP Anti-beta III Tubulin antibody [EP1569Y] - Neuronal Marker (ab190574) at 1/5000 dilution

Lane 1: Wild-type HAP1 whole cell lysate

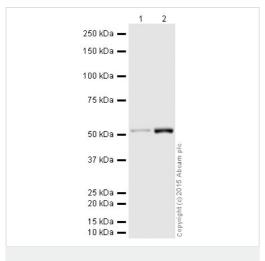
Lane 2: TUBB3 (beta III Tubulin) knockout HAP1 whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 50 kDa
Observed band size: 50 kDa

Exposure time: 2 minutes

ab190574 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. Ab190574 and **ab184095** (Mouse monoclonal [mAbcam 9484] to GAPDH - Loading Control (Alexa Fluor<sup>®</sup> 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 [EP1569Y] - Neuronal Marker (ab190574)

**All lanes :** HRP Anti-beta III Tubulin antibody [EP1569Y] - Neuronal Marker (ab190574) at 1/3000 dilution

Lane 1 : HeLa whole cell lysate (ab150035)

Lane 2: PC12 (Rat adrenal pheochromocytoma cell line) Whole

Cell Lysate

Lysates/proteins at 20 µg per lane.

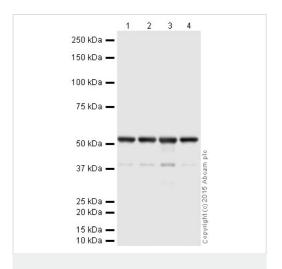
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 50 kDa Observed band size: 52 kDa

Exposure time: 1 second

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 3% milk before being incubated with ab190574 overnight at 4°C. Antibody binding was visualised using ECL development solution **ab133406**.



Western blot - HRP Anti-beta III Tubulin antibody [EP1569Y] - Neuronal Marker (ab190574)

**All lanes :** HRP Anti-beta III Tubulin antibody [EP1569Y] - Neuronal Marker (ab190574) at 1/10000 dilution

Lane 1: Brain (Mouse) Tissue Lysate

Lane 2: Spinal Cord (Mouse) Tissue Lysate

Lane 3: Brain (Rat) Tissue Lysate

Lane 4: Spinal Cord (Rat) Tissue Lysate

Lysates/proteins at 10 µg per lane.

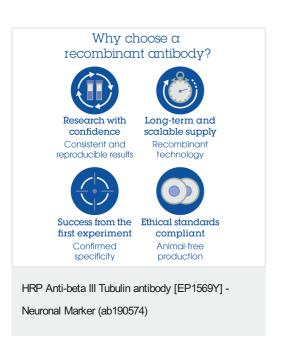
Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 50 kDa **Observed band size:** 52 kDa

Exposure time: 1 second

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 3% milk before being incubated with ab190574 overnight at 4°C. Antibody binding was visualised using ECL development solution **ab133406**.



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