

Datasheet: MCA2178

Description:	RAT ANTI CCT EPSILON
Specificity:	CCT EPSILON
Other names:	TCP 1 EPSILON
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	PK/29/23/8d
Isotype:	IgG2a
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting	▪			1/250 - 1/500
Gel Super Shift Assays	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Species Cross Reactivity

Reacts with: Mouse, Rabbit, Rat, Human, Bovine

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG - liquid

Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% sodium azide (NaN ₃)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
External Database Links	<p>UniProt: P48643 Related reagents</p> <p>Entrez Gene: 22948 CCT5 Related reagents</p>
Synonyms	CCTE, KIAA0098
RRID	AB_2073793
Specificity	<p>Rat anti CCT epsilon antibody, clone PK/29/23/8d recognizes the epsilon polypeptide of the CCT chaperonin molecule complex. CCT epsilon, also known as T-complex protein 1 subunit epsilon, CCT5 or CCTϵ is a 540 amino acid ~60 kDa molecular chaperone. The intact CCT complex is composed of eight polypeptides in a double-ring structure. CCT is important within cells in aiding the folding of proteins including actin, tubulin and the VHL tumour suppressor protein.</p> <p>Two isoforms of CCTϵ produced by alternative splicing have been described. Rat anti CCT epsilon antibody, clone PK/29/23/8d binds to the canonical isoform 1, binding to the truncated isoform 2 has not been evaluated (UniProt : P48643).</p> <p>Mutations in the CCT5 gene can lead to the development of Neuropathy, hereditary sensory, with spastic paraplegia, autosomal recessive (HSNSP) a disease characterized by spastic paraplegia and progressive neuropathy with limb ulceration (Bouhouche et al. 2006).</p>
Western Blotting	Rat anti CCT epsilon antibody, clone PK/29/23/8d detects a band of approximately 60 kDa in lysates of heat shocked Hela cells.
References	<ol style="list-style-type: none"> Hynes, G. <i>et al.</i> (1996) Analysis of chaperonin-containing TCP-1 subunits in the human keratinocyte two-dimensional protein database: further characterisation of antibodies to individual subunits. Electrophoresis. 17 (11): 1720-7. Hynes, G.M. & Willison, K.R. (2000) Individual subunits of the eukaryotic cytosolic chaperonin mediate interactions with binding sites located on subdomains of beta-actin. J Biol Chem. 275 (25): 18985-94. Hara, T. <i>et al.</i> (2007) Mass spectrometry analysis of the native protein complex containing actinin-4 in prostate cancer cells. Mol Cell Proteomics. 6 (3): 479-91. Howlett, A.C. <i>et al.</i> (2009) Role of molecular chaperones in G protein beta5/regulator of

G protein signaling dimer assembly and G protein betagamma dimer specificity. [J Biol Chem. 284 \(24\): 16386-99.](#)

5. Lai, C.W. *et al.* (2013) Phosducin-like protein 1 is essential for G-protein assembly and signaling in retinal rod photoreceptors. [J Neurosci. 33 \(18\): 7941-51.](#)

6. Gao, X. *et al.* (2013) Splice isoforms of phosducin-like protein control the expression of heterotrimeric G proteins. [J Biol Chem. 288 \(36\): 25760-8.](#)

7. Tracy, C.M. *et al.* (2014) Programmed Cell Death Protein 5 Interacts with the Cytosolic Chaperonin Containing Tailless Complex Polypeptide 1 (CCT) to Regulate β -Tubulin Folding. [J Biol Chem. 289: 4490-502.](#)

8. Mak, W.S. *et al.* (2021) Novel Binding Partners for CCT and PhLP1 Suggest a Common Folding Mechanism for WD40 Proteins with a 7-Bladed Beta-Propeller Structure [Proteomes 9\(4\): 40](#)

Further Reading

1. Llorca, O. *et al.* (2000) Eukaryotic chaperonin CCT stabilizes actin and tubulin folding intermediates in open quasi-native conformations. [EMBO J. 19 \(22\): 5971-9.](#)

Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2178>
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Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®550 , DyLight®650 , DyLight®800
Rabbit Anti Rat IgG (STAR21...)	HRP
Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP

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