

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 antibody 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 antibody 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.

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

Carrier Free

Yes

Approx. Protein Concentrations

IgG concentration 1.0 mg/ml

**External Database
Links**

UniProt:

[P48643](#) [Related reagents](#)

Entrez Gene:

[22948](#) CCT5 [Related reagents](#)

Synonyms

CCTE, KIAA0098

Specificity

Rat anti CCT epsilon antibody, clone PK/29/23/8d recognises the epsilon polypeptide of the CCT chaperonin molecule complex. CCT epsilon, also known as T-complex protein 1 subunit epsilon, CCT5 or CCT ϵ 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.

Two isoforms of CCT ϵ 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](#)).

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](#)).

Western Blotting

MCA2178 detects a band of approximately 60kD in lysates of heat shocked Hela cells.

References

1. Hynes, G. *et al.* (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.](#)
2. 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.](#)
3. 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.](#)
4. Hara, T. *et al.* (2007) Mass spectrometry analysis of the native protein complex containing actinin-4 in prostate cancer cells. [Mol Cell Proteomics. 6 \(3\): 479-91.](#)
5. 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.](#)
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. 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.](#)

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

Health And Safety Information Material Safety Datasheet documentation #10040 available at:
10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®549 , DyLight®649 , DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP

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