Datasheet: MCA2178

BATCH NUMBER 151256

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. 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
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
RRID	AB_2073793
Specificity	**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. 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). 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. Howlett, A.C. *et al.* (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. 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.

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	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.
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 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

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

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