10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CEP290 Antibody (internal region)

Peptide-affinity purified goat antibody
Catalog # AF2894a

Specification

CEP290 Antibody (internal region) - Product Information

Application	**ICC**
Primary Accession	O15078
Other Accession	NP_079390.3, 80184, 216274 (mouse)
Reactivity	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**290386**

CEP290 Antibody (internal region) - Additional Information

Gene ID 80184

Other Names
Centrosomal protein of 290 kDa, Cep290, Bardet-Biedl syndrome 14 protein, Cancer/testis antigen 87, CT87, Nephrocystin-6, Tumor antigen se2-2, CEP290, BBS14, KIAA0373, NPHP6

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CEP290 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

CEP290 Antibody (internal region) - Protein Information

Name CEP290

Synonyms BBS14, KIAA0373, NPHP6

Function
Involved in early and late steps in cilia formation. Its association with CCP110 is required for inhibition of primary cilia formation by CCP110 (PubMed:18694559). May play a role in early ciliogenesis in the disappearance of centriolar satellites and in the transition of primary ciliar vesicles (PCVs) to capped ciliary vesicles (CCVs). Required for the centrosomal

recruitment of RAB8A and for the targeting of centriole satellite proteins to centrosomes such as of PCM1 (PubMed:24421332). Required for the correct localization of ciliary and phototransduction proteins in retinal photoreceptor cells; may play a role in ciliary transport processes (By similarity). Required for efficient recruitment of RAB8A to primary cilium (PubMed:17705300). In the ciliary transition zone is part of the tectonic-like complex which is required for tissue-specific ciliogenesis and may regulate ciliary membrane composition (By similarity). Involved in regulation of the BBSome complex integrity, specifically for presence of BBS2, BBS5 and BBS8/TTC8 in the complex, and in ciliary targeting of selected BBSome cargos. May play a role in controlling entry of the BBSome complex to cilia possibly implicating IQCB1/NPHP5 (PubMed:25552655). Activates ATF4-mediated transcription (PubMed:16682973).

Cellular Location
Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriolar satellite. Nucleus {ECO:0000250|UniProtKB:Q6A078} Cell projection, cilium. Cytoplasm, cytoskeleton, cilium basal body {ECO:0000250|UniProtKB:Q6A078} Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole. Cytoplasmic vesicle. Note=Displaced from centriolar satellites in response to cellular stress, such as ultraviolet light (UV) radiation or heat shock (PubMed:24121310). Found in the connecting cilium of photoreceptor cells, base of cilium in kidney intramedullary collecting duct cells (By similarity). Localizes at the transition zone, a region between the basal body and the ciliary axoneme (PubMed:23943788). Localization at the ciliary transition zone as well as at centriolar satellites is BBsome-dependent (PubMed:23943788) {ECO:0000250|UniProtKB:Q6A078, ECO:0000269|PubMed:23943788, ECO:0000269|PubMed:24121310}

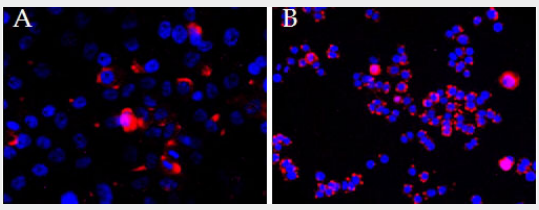
Tissue Location
Ubiquitous. Expressed strongly in placenta and weakly in brain.

CEP290 Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CEP290 Antibody (internal region) - Images



AF2894a (2.5ug/ml overnight staining of cell lines OPCT-1 (A) and MDA468 (fB) with Alexa Fluor

568 (red) and nuclear counter staining with DAPI (blue). Data kindly provided by Dr S, McArdle, and obtained by Sumanjeet Malhi , John van Geest Research Centre, Nottingham, UK

CEP290 Antibody (internal region) - Background

Despite similarity of the immunizing peptide with the mouse protein, this antibody was demonstrated to weak for mouse Cep290.

CEP290 Antibody (internal region) - References

Serotype-dependent packaging of large genes in adeno-associated viral vectors results in effective gene delivery in mice. Allocca M, Doria M, Petrillo M, Colella P, Garcia-Hoyos M, Gibbs D, Kim SR, Maguire A, Rex TS, Di Vicino U, Cutillo L, Sparrow JR, Williams DS, Bennett J, Auricchio A. J. Clin. Invest. 2008 May 118 (5): 1955-64. PMID: 18414684