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

Anti-MCAK Picoband Antibody

Catalog # ABO11921

Specification

Anti-MCAK Picoband Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	Q99661
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Kinesin-like protein KIF2C(KIF2C) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-MCAK Picoband Antibody - Additional Information

Gene ID 11004

Other Names
Kinesin-like protein KIF2C, Kinesin-like protein 6, Mitotic centromere-associated kinesin, MCAK, KIF2C, KNSL6

Calculated MW
81313 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Mouse, Rat, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Mouse

Subcellular Localization
Cytoplasm, cytoskeleton . Nucleus . Chromosome, centromere. Chromosome, centromere, kinetochore. Associates with the microtubule network at the growing distal tip (the plus-end) of microtubules, probably through interaction with MTUS2/TIP150 and MAPRE1 (By similarity). Association with microtubule plus ends is also mediated by interaction with KIF18B. Centromeric localization requires the presence of BUB1 and SGOL2. .

Tissue Specificity
Expressed at high levels in thymus and testis, at low levels in small intestine, the mucosal lining of colon, and placenta, and at very low levels in spleen and ovary; expression is not detected in prostate, peripheral blood Leukocytes, heart, brain, lung, liver, skeletal muscle, kidney or pancreas. Isoform 2 is testis-specific. .

Protein Name
Kinesin-like protein KIF2C

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human MCAK recombinant protein (Position: G531-Q725). Human MCAK shares 87% amino acid (aa) sequence identity with both mouse and rat MCAK.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage **At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time. Avoid repeated freezing and thawing.**

Sequence Similarities
Belongs to the TRAFAC class myosin-kinesin ATPase superfamily. Kinesin family. MCAK/KIF2 subfamily.

Anti-MCAK Picoband Antibody - Protein Information

Name KIF2C

Synonyms KNSL6

Function
In complex with KIF18B, constitutes the major microtubule plus-end depolymerizing activity in mitotic cells (PubMed:21820309). Regulates the turnover of microtubules at the kinetochore and functions in chromosome segregation during mitosis (PubMed:19060894). Plays a role in chromosome congression and is required for the lateral to end- on conversion of the chromosome-microtubule attachment (PubMed:23891108).

Cellular Location
Cytoplasm, cytoskeleton. Nucleus {ECO:0000250|UniProtKB:P70096} Chromosome, centromere. Chromosome, centromere, kinetochore. Note=Associates with the microtubule network at the growing distal tip (the plus-end) of microtubules, probably through interaction with MTUS2/TIP150 and MAPRE1 (By similarity). Association with microtubule plus ends is also mediated by interaction with KIF18B. Centromeric localization requires the presence of BUB1 and SGO2. {ECO:0000250|UniProtKB:P70096, ECO:0000269|PubMed:17485487, ECO:0000269|PubMed:21820309}

Tissue Location
Expressed at high levels in thymus and testis, at low levels in small intestine, the mucosal lining of colon, and placenta, and at very low levels in spleen and ovary; expression is not detected in prostate, peripheral blood Leukocytes, heart, brain, lung, liver, skeletal muscle, kidney or pancreas. Isoform 2 is testis- specific.

Anti-MCAK Picoband Antibody - Protocols

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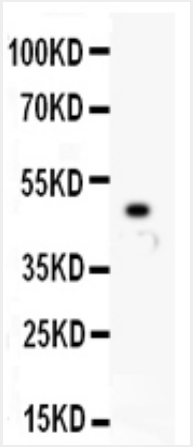
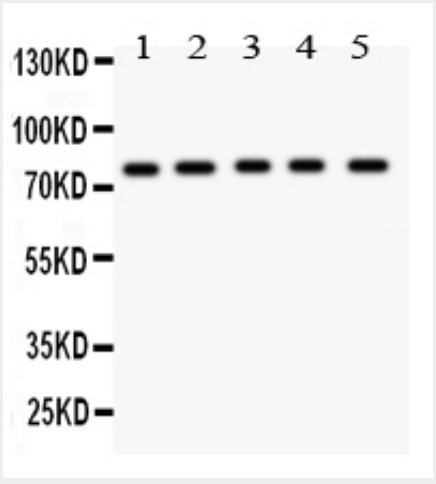
Provided below are standard protocols that you may find useful for product applications.

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

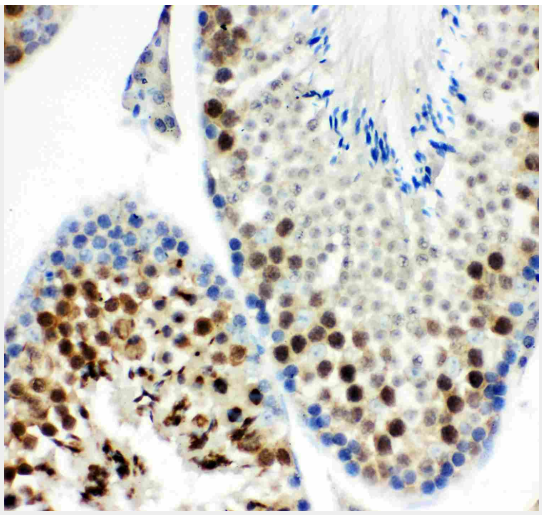
Anti-MCAK Picoband Antibody - Images



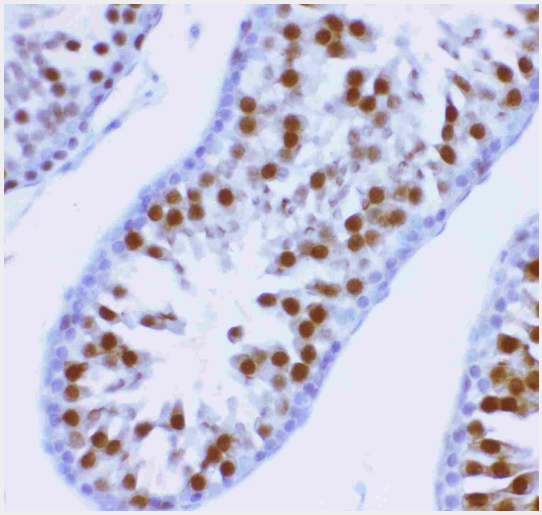
Anti- MCAK antibody, ABO11921, Western blottingAll lanes: Anti MCAK (ABO11921) at 0.5ug/mlWB: Recombinant Human MCAK Protein 0.5ngPredicted bind size: 48KDObserved bind size: 48KD



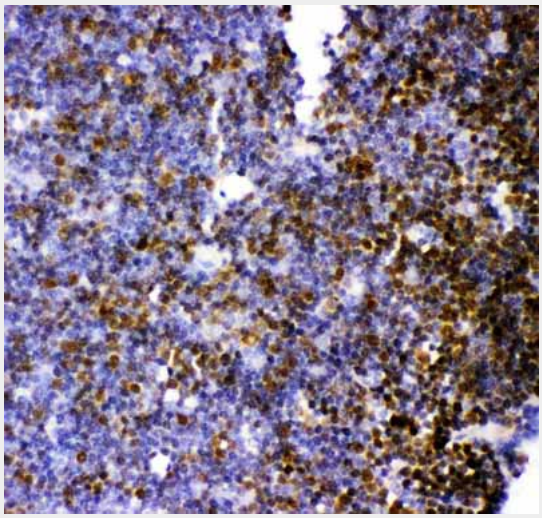
Anti- MCAK antibody, ABO11921, Western blottingAll lanes: Anti MCAK (ABO11921) at 0.5ug/mlLane 1: Mouse Testis Tissue Lysate at 50ugLane 2: HELA Whole Cell Lysate at 40ugLane 3: MM231 Whole Cell Lysate at 40ugLane 4: MM453 Whole Cell Lysate at 40ugLane 5: SKOV Whole Cell Lysate at 40ugPredicted bind size: 81KDObserved bind size: 81KD



Anti- MCAK antibody, ABO11921, IHC(P)IHC(P): Mouse Testis Tissue



Anti- MCAK antibody, ABO11921, IHC(P)IHC(P): Rat Testis Tissue



Anti- MCAK antibody, ABO11921, IHC(P)IHC(P): Rat Thymus Tissue

Anti-MCAK Picoband Antibody - Background

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Kinesin-like protein KIF2C is a protein that in humans is encoded by the KIF2C gene. It is mapped to 1p34.1. The protein encoded by this gene is a member of kinesin-like protein family. Most proteins of this family are microtubule-dependent molecular motors that transport organelles within cells and move chromosomes during cell division. This protein acts to regulate microtubule dynamics in cells and is important for anaphase chromosome segregation and may be required to coordinate the onset of sister centromere separation. KIF2C uses microtubule depolymerizing activity to correct improper microtubule attachments at kinetochores.