abcam

Product datasheet

Anti-Eg5 antibody [EPR23277-7] - BSA and Azide free ab272226

Recombinant RabMAb

8 Images

Overview

Product name	Anti-Eg5 antibody [EPR23277-7] - BSA and Azide free
Description	Rabbit monoclonal [EPR23277-7] to Eg5 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** WB, Flow Cyt (Intra), ICC/IF, IHC-P **Unsuitable for:** IHC-Fr or IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human testis, human tonsil, human lung, Jurkat, NCI-H1975, MCF7, 4T1, HeLa, HEK-293, AR42J, mouse testis, rat testis and PC-12, NIH/3T3 lysates. IHC-P: Human tonsil, human breast cancer and mouse testis, Rat testis tissues. ICC/IF: and HeLa, NIH/3T3 cells. Flow Cyt (intra): HeLa cell.
General notes	ab272226 is the carrier-free version of **ab272220**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR23277-7
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab272226 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Detects a band of approximately 130 kDa (predicted molecular weight: 119 kDa).
Flow Cyt (Intra)		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Application notes Is unsuitable for IHC-Fr or IP.

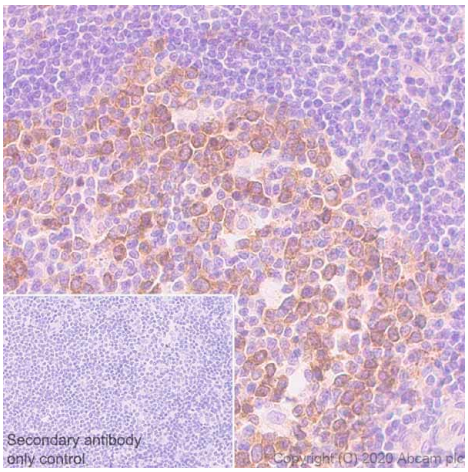
Target

Function Motor protein required for establishing a bipolar spindle. Blocking of KIF11 prevents centrosome migration and arrest cells in mitosis with monoastral microtubule arrays.

Involvement in disease Defects in KIF11 are the cause of microcephaly with or without chorioretinopathy, lymphedema, or mental retardation (MCLMR) [MIM:152950]. An autosomal dominant disorder that involves an overlapping but variable spectrum of central nervous system and ocular developmental anomalies. Microcephaly ranges from mild to severe and is often associated with mild to moderate developmental delay and a characteristic facial phenotype with upslanting palpebral fissures, broad nose with rounded tip, long philtrum with thin upper lip, prominent chin, and prominent ears. Chorioretinopathy is the most common eye abnormality, but retinal folds,

	microphthalmia, and myopic and hypermetropic astigmatism have also been reported, and some individuals have no overt ocular phenotype. Congenital lymphedema, when present, is typically confined to the dorsa of the feet, and lymphoscintigraphy reveals the absence of radioactive isotope uptake from the webspaces between the toes.
Sequence similarities	Belongs to the kinesin-like protein family. BimC subfamily. Contains 1 kinesin-motor domain.
Post-translational modifications	Phosphorylated exclusively on serine during S phase, but on both serine and Thr-926 during mitosis, so controlling the association of KIF11 with the spindle apparatus (probably during early prophase). Phosphorylated upon DNA damage, probably by ATM or ATR. A subset of this protein primarily localized at the spindle pole is phosphorylated by NEK6 during mitosis; phosphorylation is required for mitotic function.
Cellular localization	Cytoplasm. Cytoplasm > cytoskeleton > spindle pole.

Images



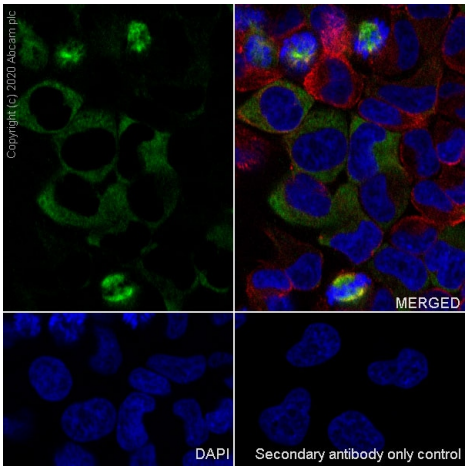
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Eg5 antibody [EPR23277-7] - BSA and Azide free (ab272226)

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling Eg5 with **ab272220** at 1/500 dilution followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Cytoplasmic staining in germinal center of human tonsil is observed (PMID:25277178). The section was incubated with **ab272220** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab272220**).

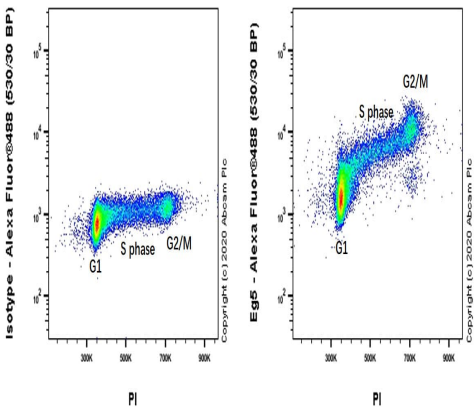


Immunocytochemistry/ Immunofluorescence - Anti-Eg5 antibody [EPR23277-7] - BSA and Azide free (ab272226)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa cells labeling Eg5 with **ab272220** at 1/50 dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing spindle fibre and cytoplasmic staining in HeLa cell line. **ab195889** Anti-alpha Tubulin antibody (Alexa Fluor® 594) was used to counterstain tubulin at 1/1000 dilution (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.

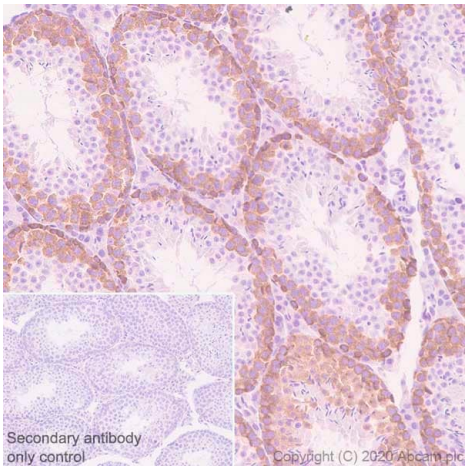
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab272220**).



Flow Cytometry (Intracellular) - Anti-Eg5 antibody [EPR23277-7] - BSA and Azide free (ab272226)

Intracellular flow cytometric analysis of 80% methanol fixed 0.1% Tween-20 permeabilized HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Eg5 with **ab272220** at 1/50 dilution (0.1µg)/ Right compared with a Rabbit monoclonal IgG (**ab172730**) / Left isotype control. Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) at 1/2000 dilution was used as the secondary antibody. Cells were pre-treated with 20µg/ml RNaseA for 30min to minimize the binding between Propidium Iodide (PI) and RNA. Then intracellularly stained with **ab272220** and PI. Propidium Iodide Flow Cytometry Kit (**ab139418**) was used for RNaseA treatment and PI staining.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab272220**).



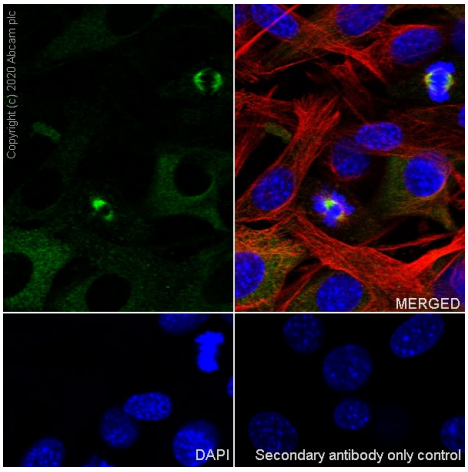
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Eg5 antibody [EPR23277-7] - BSA and Azide free (ab272226)

Immunohistochemical analysis of paraffin-embedded mouse testis tissue labeling Eg5 with **ab272220** at 1/500 dilution followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Cytoplasmic staining in spermatocytes and spermatogonia of mouse testis is observed. The section was incubated with **ab272220** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab272220**).

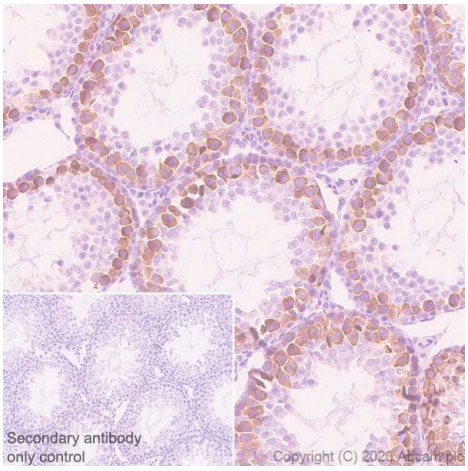


Immunocytochemistry/ Immunofluorescence - Anti-Eg5 antibody [EPR23277-7] - BSA and Azide free (ab272226)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized NIH/3T3 cells labeling Eg5 with **ab272220** at 1/50 dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing spindle fibre and cytoplasmic staining in NIH/3T3 cell line. **ab195889** Anti-alpha Tubulin antibody (Alexa Fluor® 594) was used to counterstain tubulin at 1/1000 dilution (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab272220**).



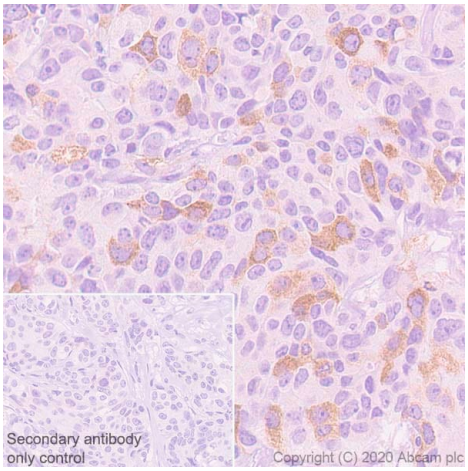
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Eg5 antibody [EPR23277-7] - BSA and Azide free (ab272226)

Immunohistochemical analysis of paraffin-embedded rat testis tissue labeling Eg5 with **ab272220** at 1/500 dilution followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Cytoplasmic staining in spermatocytes and spermatogonnia of rat testis is observed. The section was incubated with **ab272220** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab272220**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Eg5 antibody [EPR23277-7] - BSA and Azide free (ab272226)

Immunohistochemical analysis of paraffin-embedded human breast cancer tissue labeling Eg5 with **ab272220** at 1/500 dilution followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Scattered cytoplasmic staining in human breast cancer cells is observed (PMID:29181100). The section was incubated with **ab272220** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab272220**).

Anti-Eg5 antibody [EPR23277-7] - BSA and Azide free (ab272226)

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