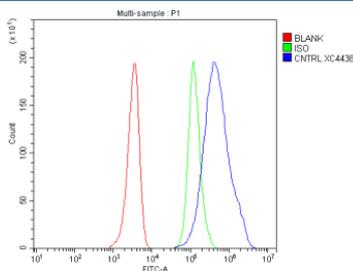


## CNTRL Antibody / Centriolin / CEP110 (FY12706)

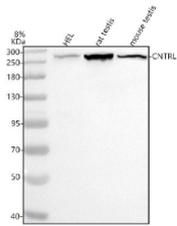
Catalog No.	Formulation	Size
FY12706	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

[Bulk quote request](#)

<b>Availability</b>	1-2 days
<b>Species Reactivity</b>	Human, Mouse, Rat
<b>Format</b>	Lyophilized
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal (rabbit origin)
<b>Isotype</b>	Rabbit IgG
<b>Purity</b>	Immunogen affinity purified
<b>Buffer</b>	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
<b>UniProt</b>	Q7Z7A1
<b>Applications</b>	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
<b>Limitations</b>	This CNTRL antibody is available for research use only.



Flow Cytometry analysis of HEL cells using anti-CNTRL antibody. Overlay histogram showing HEL cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CNTRL antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of CEP110/CNTRL using anti-CNTRL antibody. Lane 1: human HEL whole cell lysates, Lane 2: rat testis tissue lysates, Lane 3: mouse testis tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CNTRL antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. A specific band was detected for CEP110/CNTRL at approximately 269 kDa. The expected molecular weight of CEP110/CNTRL is at 269 kDa.

## Description

CNTRL antibody detects Centriolin (also known as CEP110 or Centriole-associated protein CNTRL), a large coiled-coil protein that localizes to centrosomes and the midbody, where it regulates cytokinesis and cell cycle progression. Encoded by the CNTRL gene on chromosome 9q33.2, this protein functions as a structural scaffold coordinating membrane trafficking, microtubule organization, and abscission during late mitosis. CNTRL interacts with both centrosomal and Golgi-derived vesicle components, linking cytokinetic machinery with secretory pathways required for cell division completion.

Centriolin contains multiple coiled-coil domains and leucine zipper motifs that mediate self-association and recruitment of other midbody proteins, including exocyst complex components (EXOC6 and EXOC8) and SNARE regulators. During mitosis, CNTRL localizes to the midbody ring structure where it anchors vesicles essential for the final abscission step separating daughter cells. Loss of CNTRL disrupts cytokinesis, leading to multinucleation and cell cycle arrest. The protein also contributes to centrosome cohesion and Golgi organization during interphase, maintaining proper microtubule anchoring and intracellular transport.

The CNTRL antibody is widely used in cell biology and cancer research to study centrosome dynamics, cytokinesis, and vesicle trafficking. In immunofluorescence microscopy, CNTRL staining reveals punctate centrosomal and midbody localization, while western blot analysis identifies a high molecular weight band of approximately 230 kilodaltons. Because defects in CNTRL function are associated with abnormal cell division and chromosomal instability, this antibody is valuable for examining mitotic control and tumorigenesis. CNTRL dysregulation has been reported in several cancers, including glioblastoma and ovarian carcinoma, where centrosome amplification and cytokinetic failure contribute to genomic instability.

Beyond its role in mitosis, CNTRL participates in cilia formation and signaling. It anchors specific vesicles involved in ciliogenesis, linking basal bodies to the Golgi apparatus. The CNTRL antibody enables detection of this dual localization pattern and supports mechanistic studies into centrosome-related diseases (centrosomopathies). NSJ Bioreagents provides this antibody validated for its applications, ensuring specific detection of Centriolin across human and model systems. By targeting this key structural protein, researchers can investigate the molecular framework underlying cytokinesis, centrosome integrity, and vesicular organization.

## Application Notes

Optimal dilution of the CNTRL antibody should be determined by the researcher.

## Immunogen

E.coli-derived human CEP110/CNTRL recombinant protein (Position: T991-E2187) was used as the immunogen for the CNTRL antibody.

## Storage

After reconstitution, the CNTRL antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

