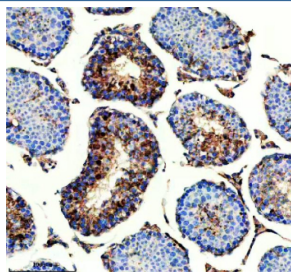


IQCM Antibody / IQ motif-containing protein M (FY12852)

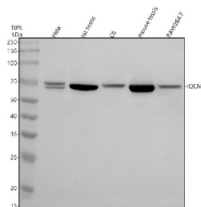
Catalog No.	Formulation	Size
FY12852	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

[Bulk quote request](#)

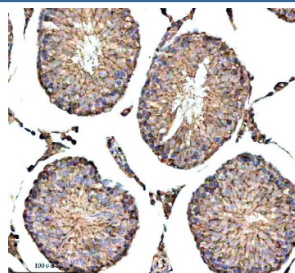
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	A0A1B0GVH7
Applications	Western Blot : 0.25-0.5ug/ml Immunohistochemistry : 2-5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This IQCM antibody is available for research use only.



Immunohistochemical staining of IQCM using anti-IQCM antibody. IQCM was detected in a paraffin-embedded section of mouse testis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-IQCM antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



Western blot analysis of IQCM using anti-IQCM antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human Hela whole cell lysates, Lane 2: rat testis tissue lysates, Lane 3: rat C6 whole cell lysates, Lane 4: mouse testis tissue lysates, Lane 5: mouse RAW264.7 whole cell 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-IQCM 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 an ECL Plus Western Blotting Substrate. A specific band was detected for IQCM at approximately 60 kDa. The expected molecular weight of IQCM is ~60 kDa.



Immunohistochemical staining of IQCM using anti-IQCM antibody. IQCM was detected in a paraffin-embedded section of rat testis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-IQCM antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.

Description

IQCM antibody detects IQ motif-containing protein M, a testis-expressed protein involved in spermatogenesis, cilia formation, and flagellar motility. Encoded by the IQCM gene on chromosome 3q29, this protein contains IQ motifs that mediate calcium-dependent interactions with calmodulin and other regulatory proteins. IQCM plays a critical role in sperm tail formation and motility, contributing to male fertility and normal reproductive function.

Structurally, IQCM is characterized by its multiple IQ calmodulin-binding motifs, which enable dynamic regulation of protein conformation in response to intracellular calcium levels. It localizes primarily to developing germ cells, particularly in the flagellar basal body and axoneme, suggesting a function in microtubule organization and motor protein regulation. IQCM may interact with dynein and kinesin complexes to ensure coordinated flagellar movement.

The IQCM antibody is widely used in reproductive biology, developmental genetics, and ciliary research to examine spermatogenesis, motility regulation, and structural assembly of axonemal complexes. Western blot analysis identifies a 115 kilodalton band corresponding to IQCM, while immunofluorescence shows strong staining in the sperm flagellum and cytoplasmic vesicles of differentiating spermatids. This antibody supports studies exploring the molecular machinery underlying cilia and flagella function.

Mutations or loss of IQCM lead to defective sperm motility and infertility in animal models, emphasizing its essential role in sperm tail formation. The calcium-calmodulin-dependent activity of IQCM links cellular signaling to mechanical movement, integrating metabolic and structural regulation in germ cell development. The IQCM antibody provides an effective reagent for dissecting these interactions at the molecular level. NSJ Bioreagents validates this antibody for its applications, ensuring reliable detection in reproductive and cell motility research.

Application Notes

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

Immunogen

E.coli-derived human IQCM recombinant protein (Position: R161-E501) was used as the immunogen for the IQCM antibody.

Storage

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