

## Anti-Caldesmon Antibody (6J397)

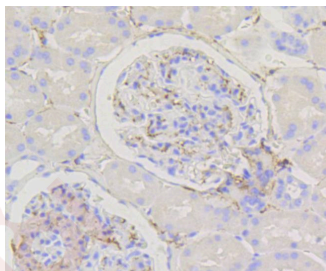
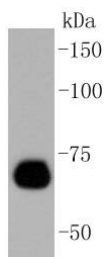
### Product Details

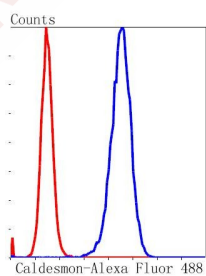
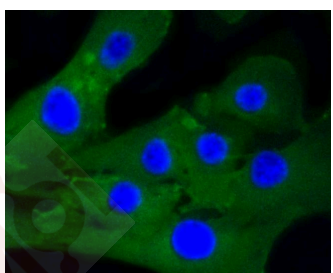
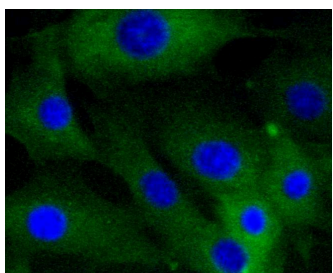
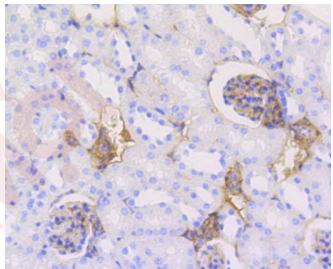
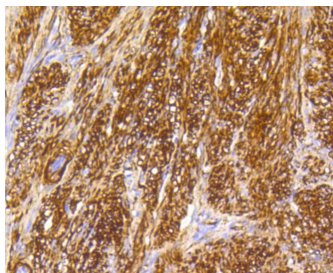
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 70 kDa.
Clone:	6J397
Purification:	ProA affinity purified

### Applications

#### Verified Activity:

1. Western blot analysis of Caldesmon on NIH/3T3 cell lysates using anti-Caldesmon antibody at 1/1,000 dilution.
2. Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-Caldesmon antibody. Counter stained with hematoxylin.
3. Immunohistochemical analysis of paraffin-embedded human uterus tissue using anti-Caldesmon antibody. Counter stained with hematoxylin.
4. Immunohistochemical analysis of paraffin-embedded mouse kidney tissue using anti-Caldesmon antibody. Counter stained with hematoxylin.
5. ICC staining Caldesmon in NIH/3T3 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
6. ICC staining Caldesmon in C2C12 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
7. Flow cytometric analysis of NIH/3T3 cells with Caldesmon antibody at 1/50 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody; red). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.





Application: FCM, ICC/IF, IHC, IP, WB

Recommended WB: 1:1000-2000; IHC: 1:50-200; ICC/IF: 1:50-200; FCM: 1:50-100

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen:	Recombinant Protein
Uniprot ID:	Q05682
Synonyms:	Caldesmon 1;CALD1;Caldesmon 1 Isoform 2;CALD1_HUMAN;Caldesmon 1 Isoform 1;Caldesmon 1 Isoform 3;Caldesmon1;Caldesmon;NAG22;H CAD;L CAD;CALD 1;Caldesmon 1 Isoform 5;CDM;Caldesmon 1 Isoform 4;CAD;LCAD;MGC21352;HCAD

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### Research Background

Caldesmon, Filamin 1, Nebulin and Villin are differentially expressed and regulated Actin binding proteins. Both muscular and non-muscular forms of Caldesmon have been identified and each has been shown to bind to Actin as well as to calmodulin and Myosin. Alternative splicing of the gene encoding Caldesmon results in five isoforms. Muscular Caldesmon (isoform 1), also designated high molecular weight Caldesmon or H-Caldesmon (H-CAD), is expressed predominantly on thin filaments in smooth muscle. Non-muscular Caldesmon (isoforms 2-5), also designated low molecular weight Caldesmon or L-Caldesmon (L-CAD), is widely expressed in non-muscle tissues and cells. Filamin 1, which is ubiquitously expressed and exists as a homodimer, functions to crosslink Actin to filaments. Nebulin is a large filamentous protein specific to muscle tissue that may function as a ruler for filament length. Several isoforms of Nebulin are produced by alternative exon usage. Villin is Ca<sup>2+</sup>-regulated and is the major structural component of the brush border of absorptive cells.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481