# Human Caldesmon/CALD1 Alexa Fluor® 488-conjugated Antibody

Monoclonal Mouse $IgG_{2B}$ Clone # 767001

Catalog Number: FAB7569G

100 µg

## DESCRIPTION

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| **Species Reactivity** | Human |
| **Specificity** | Detects human Caldesmon/CALD1 in direct ELISAs and Western blots. |
| **Source** | Monoclonal Mouse $IgG_{2B}$ Clone # 767001 |
| **Purification** | Protein A or G purified from hybridoma culture supernatant |
| **Immunogen** | *E. coli*-derived recombinant human Caldesmon/CALD1<br>Lys696-Val793<br>Accession # Q05682 |
| **Conjugate** | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm |
| **Formulation** | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

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| **Western Blot** | Optimal dilution of this antibody should be experimentally determined. |
| **Immunocytochemistry** | Optimal dilution of this antibody should be experimentally determined. |
| **Immunohistochemistry** | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

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| **Shipping** | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| **Stability & Storage** | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied |

## BACKGROUND

Caldesmon, also known as CaD or h-CaD, is a 120-150 kDa cytosolic protein that is important in actin cytoskeleton dynamics. Smooth muscle Caldesmon regulates calcium-dependent smooth muscle contraction by stabilizing actin filaments, inhibiting the actomyosin ATPase, and interacting with F-actin, myosin, tropomyosin, and calmodulin. It is also a key molecule in other related actin-related processes including cytokinesis, cell migration, wound healing, and exocytosis. Caldesmon activity is regulated by serine and tyrosine phosphorylation by multiple kinases. Alternate splicing generates 70-80 kDa isoforms of human Caldesmon, known as l-CaD, that lack the central repeating region of the protein (aa 208-436 or aa 208-462). These isoforms are widely expressed and are comparable in size to full length mouse and rat Caldesmon. Within aa 696-793, human Caldesmon shares 94% and 95% aa sequence identity with mouse and rat Caldesmon, respectively.

## PRODUCT SPECIFIC NOTICES





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