## abcam

## Product datasheet

## Recombinant Human Caldesmon／CDM protein ab114302

## 1 图像

| 描述 |  |
| :--- | :--- |
| 产品名称 | 重组人Caldesmon／CDM蛋白 |
| 表达系统 | Wheat germ |
| Accession | $\underline{\text { Q05682－4 }}$ |
| 蛋白长度 | Full length protein |
| 无动物成分 | No |
| 性质 | Recombinant |
| 种属 | Human |
| 预测分子量 | 85 kDa including tags |
| 氨基酸 | 1 to 538 |

技术指标
Our Abpromise guarantee covers the use of ab114302 in the following tested applications．
The application notes include recommended starting dilutions；optimal dilutions／concentrations should be determined by the end user．

| 应用 | Western blot |
| :--- | :--- |
|  | ELISA |
|  | SDS－PAGE |
| 形式 | Liquid |
| 补充说明 | This product was previously labelled as Caldesmon． |

制备和贮存

稳定性和存储
Shipped on dry ice．Upon delivery aliquot and store at $-80^{\circ} \mathrm{C}$ ．Avoid freeze／thaw cycles．
pH： 8.00
Constituents：0．3\％Glutathione， $0.79 \%$ Tris HCI

功能

组织特异性

序列相似性
结构域

翻译后修饰

细胞定位

Actin－and myosin－binding protein implicated in the regulation of actomyosin interactions in smooth muscle and nonmuscle cells（could act as a bridge between myosin and actin filaments）． Stimulates actin binding of tropomyosin which increases the stabilization of actin filament structure．In muscle tissues，inhibits the actomyosin ATPase by binding to F－actin．This inhibition is attenuated by calcium－calmodulin and is potentiated by tropomyosin．Interacts with actin， myosin，two molecules of tropomyosin and with calmodulin．Also play an essential role during cellular mitosis and receptor capping．

High－molecular－weight caldesmon（isoform 1）is predominantly expressed in smooth muscles， whereas low－molecular－weight caldesmon（isoforms 2，3， 4 and 5）are widely distributed in non－ muscle tissues and cells．Not expressed in skeletal muscle or heart．

Belongs to the caldesmon family．
The N－terminal part seems to be a myosin／calmodulin－binding domain，and the C－terminal a tropomyosin／actin／calmodulin－binding domain．These two domains are separated by a central helical region in the smooth－muscle form．

In non－muscle cells，phosphorylation by CDK1 during mitosis causes caldesmon to dissociate from microfilaments．Phosphorylation reduces caldesmon binding to actin，myosin，and calmodulin as well as its inhibition of actomyosin ATPase activity．Phosphorylation also occurs in both quiescent and dividing smooth muscle cells with similar effects on the interaction with actin and calmodulin and on microfilaments reorganization．

Cytoplasm＞cytoskeleton．Cytoplasm＞myofibril．On thin filaments in smooth muscle and on stress fibers in fibroblasts（nonmuscle）．

图片


SDS－PAGE－Recombinant Human Caldesmon／CDM protein（ab114302）
$12.5 \%$ SDS－PAGE image showing ab114302 Stained with Coomassie Blue．

Please note：All products are＂FOR RESEARCH USE ONLY．NOT FOR USE IN DIAGNOSTIC PROCEDURES＂

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- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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