

Product Information

Catenin α , GST-tagged, human recombinant, expressed in *Sf9* insect cells

Catalog Number **SRP5171**
Storage Temperature $-70\text{ }^{\circ}\text{C}$

Synonyms: CTNNA1, CAP102, FLJ36832

Product Description

Catenin α is a novel actin-binding and bundling protein. Catenin α is responsible for organizing and tethering actin filaments at the zones of E-cadherin-mediated cell-cell contact.¹ Monomeric catenin α can bind strongly to E-Cadherin- β -Catenin; whereas, the dimer preferentially binds actin filaments. Different molecular conformations are associated with these different binding states, indicating that Catenin α is an allosteric protein. α -Catenin directly regulates actin-filament organization by suppressing Arp2/3-mediated actin polymerization, likely by competing with the Arp2/3 complex for binding to actin filaments.²

Recombinant full-length human Catenin α was expressed by baculovirus in *Sf9* insect cells using an N-terminal GST tag. The gene accession number is NM_001903. Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~123 kDa

Purity: 70–95% (SDS-PAGE, see Figure 1)

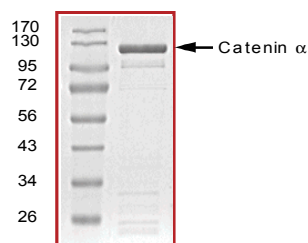
Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at $-70\text{ }^{\circ}\text{C}$ is recommended. After opening, aliquot into smaller quantities and store at $-70\text{ }^{\circ}\text{C}$. Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.
SDS-PAGE Gel of Typical Lot
70–95% (densitometry)



References

1. Rimm, D.L. et al., Alpha 1(E)-catenin is an actin-binding and -bundling protein mediating the attachment of F-actin to the membrane adhesion complex. *Proc. Natl. Acad. Sci. USA.*, **92(19)**, 8813-7 (1995).
2. Drees, F. et al., Alpha-catenin is a molecular switch that binds E-cadherin-beta-catenin and regulates actin-filament assembly. *Cell*, **123(5)**, 903-15 (2005).

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