

ADD3 Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14227B**Specification**

ADD3 Antibody (C-term) - Product Information

Application	WB,E
Primary Accession	O9UEY8
Other Accession	NP_001112.2 , NP_063968.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	79155
Antigen Region	552-580

ADD3 Antibody (C-term) - Additional Information**Gene ID** 120**Other Names**

Gamma-adducin, Adducin-like protein 70, ADD3, ADDL

Target/Specificity

This ADD3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 552-580 amino acids from the C-terminal region of human ADD3.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

ADD3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ADD3 Antibody (C-term) - Protein Information**Name** ADD3**Synonyms** ADDL

Function Membrane-cytoskeleton-associated protein that promotes the assembly of the spectrin-actin network. Plays a role in actin filament capping (PubMed:[23836506](#)). Binds to calmodulin (Probable). Involved in myogenic reactivity of the renal afferent arteriole (Af-art), renal interlobular arteries and middle cerebral artery (MCA) to increased perfusion pressure. Involved in regulation of potassium channels in the vascular smooth muscle cells (VSMCs) of the Af-art and MCA ex vivo. Involved in regulation of glomerular capillary pressure, glomerular filtration rate (GFR) and glomerular nephrin expression in response to hypertension. Involved in renal blood flow (RBF) autoregulation. Plays a role in podocyte structure and function. Regulates globular monomer actin (G-actin) and filamentous polymer actin (F-actin) ratios in the primary podocytes affecting actin cytoskeleton organization. Regulates expression of synaptopodin, RhoA, Rac1 and CDC42 in the renal cortex and the primary podocytes. Regulates expression of nephrin in the glomeruli and in the primary podocytes, expression of nephrin and podocin in the renal cortex, and expression of focal adhesion proteins integrin alpha-3 and integrin beta-1 in the glomeruli. Involved in cell migration and cell adhesion of podocytes, and in podocyte foot process effacement. Regulates expression of profibrotic markers MMP2, MMP9, TGF beta-1, tubular tight junction protein E-cadherin, and mesenchymal markers vimentin and alpha-SMA (By similarity). Promotes the growth of neurites (By similarity).

Cellular Location

Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:Q62847}. Cell membrane {ECO:0000250|UniProtKB:Q62847}; Peripheral membrane protein; Cytoplasmic side. Cytoplasm {ECO:0000250|UniProtKB:Q9QYB5}. Note=Full-length protein and the cleavage fragment 358-706 localize mainly to the cytoplasm, while cleavage fragment 1-357 translocates from the cytoplasm to the nucleus. {ECO:0000250|UniProtKB:Q9QYB5}

Tissue Location

[Isoform 1]: ubiquitously expressed.

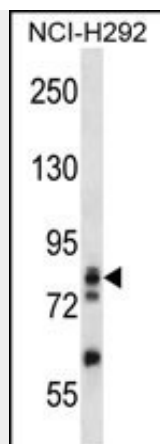
ADD3 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ADD3 Antibody (C-term) - Images





ADD3 Antibody (C-term) (Cat. #AP14227b) western blot analysis in NCI-H292 cell line lysates (35ug/lane). This demonstrates the ADD3 antibody detected the ADD3 protein (arrow).

ADD3 Antibody (C-term) - Background

Adducins are heteromeric proteins composed of different subunits referred to as adducin alpha, beta and gamma. The three subunits are encoded by distinct genes and belong to a family of membrane skeletal proteins involved in the assembly of spectrin-actin network in erythrocytes and at sites of cell-cell contact in epithelial tissues. While adducins alpha and gamma are ubiquitously expressed, the expression of adducin beta is restricted to brain and hematopoietic tissues. Adducin, originally purified from human erythrocytes, was found to be a heterodimer of adducins alpha and beta. Polymorphisms resulting in amino acid substitutions in these two subunits have been associated with the regulation of blood pressure in an animal model of hypertension. Heterodimers consisting of alpha and gamma subunits have also been described. Structurally, each subunit is comprised of two distinct domains. The amino-terminal region is protease resistant and globular in shape, while the carboxy-terminal region is protease sensitive. The latter contains multiple phosphorylation sites for protein kinase C, the binding site for calmodulin, and is required for association with spectrin and actin. Alternatively spliced adducin gamma transcripts encoding different isoforms have been described. The functions of the different isoforms are not known.

ADD3 Antibody (C-term) - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Garcia-Barcelo, M.M., et al. Hum. Mol. Genet. 19(14):2917-2925(2010)
Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)
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