



# Recombinant Rat Beta-adducin (Add2)

<b>Product Code</b>	CSB-MP001349RA
<b>Storage</b>	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
<b>Uniprot No.</b>	Q05764
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Rattus norvegicus (Rat)
<b>Purity</b>	≥85% (SDS-PAGE)
<b>Sequence</b>	<p>MSEDTVPEAA SPPPSQGQHY FDRFSEDDPE YLRLRNRAAD LRQDFNLMEQ            KKRVTMILQS PSFREELEGL IQEQMKKGNN SSNIWALRQI ADFMASTSHA            VFPASSMNFS MMTTPINDLHT ADSLNLAKGE RLMRCKISSV YRLLDLYGWA            QLSDTYVTLR VSKEQDHFLI SPKGVSCSEV TASSLIKVNI LGEVVEKGSS            CFPVDTTGFS LHS AIYAARP DVRCAIHLHT PATAAVSAMK CGLLPVSHNA            LLVGDMAYYD FNGEMEQUEAD RINLQKCLGP TCKILVLRNH GMVALGDTVE            EAFYKVFHLQ AACEVQVSAL SSAGGTENLI LLEQEKHRPH EVGSVQWAGS            TFGPMQKSRL GEHEFEALMR MLDNLGYRTG YTYRHPFVQE KTKHKSEVEI            PATVTAFFVE EDGVPVPALR QHAQKQKQEK TRWLNTPNY LRVNVADEVQ            RNMGSPRPKT TWMKADEVEK SSSGMPRIE NPNQFVPLYT DPQEVLDMRN            KIREQNRQDI KSAGPQSLL ASVIAEKSRP PSTESQLASK GDADTKDELE            ETVPNPFSQL TDQELEEYKK EVERKKLEQE QEGEKDAATE EPGSPVKSTP            ASPVQSPTRA GTKSPAVSPS KASEDAKTE VSEANTEPEP EKPEGVVVNG            KEEPCVEEV LSKGPGQMTT NADTDGDSYK DKTESVTSGP LSPEGSPSKS            PSKKKKKFRT PSFLKSKKK EKVES</p>
<b>Source</b>	Mammalian cell
<b>Target Names</b>	Add2
<b>Protein Names</b>	Recommended name: Beta-adducin Alternative name(s): Adducin-63 Erythrocyte adducin subunit beta
<b>Expression Region</b>	1-725
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag type will be determined during the manufacturing process.
<b>Protein Length</b>	Full length protein
<b>Target Details</b>	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. Various adducin beta mRNAs, alternatively spliced at 3' end and/or internally spliced and encoding different isoforms, have been described. The functions of all the different isoforms are not known.

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**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

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**Shelf Life**

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.