

## Recombinant Human ADD2

Cat. No. ADD2-26138TH Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant full length Human Adducin 2 with a N terminal proprietary tag; Predicted MW 105.93 kDa.
<b>Species</b>	Human
<b>Source</b>	Wheat Germ
<b>ProteinLength</b>	726 amino acids

### Description

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 transcript variants have been described.

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<b>Molecular Weight</b>	105.930kDa inclusive of tags
<b>Tissue specificity</b>	Expressed mainly in brain, spleen, kidney cortex and medulla, and heart. Also expressed in human umbilical vein endothelial cells, human vascular smooth muscle cells, kidney tubular cells and K562 cells.
<b>Form</b>	Liquid
<b>Purity</b>	Proprietary Purification
<b>Storage buffer</b>	pH: 8.00 Constituents: 0.79% Tris HCl, 0.3% Glutathione
<b>Storage</b>	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
<b>Sequences of amino acids</b>	<p>MSEETVPEAASPPPPQGQPYFDRFSEDDPEYMRLRNRAAD LRQDFNLMEQKKRV          TMILQSPSFREELEGLIQEQMKKGNN SSNIWALRQIADFMASHTSHAVFPTSSMNVS          MMTPINDLHT ADSLNLAKGERLMRCKISSVYRLLDLYGWAQLSDTYVTLR VSKEQD          HFLISPKGVSCSEVTASSLIKVNILGEVVEKGSS CFPVDTTGFCLHSAIYAARPDVRCI          IHLHTPATAAVSAMK WGLLPVSHNALLVGDMAYYDFNGEMEQAADRINLQKCLGP          TCKILVLRNHGVVALGDTVVEAFYKIFHLQAACEIQVSAL SSAGGVENLILLEQEKHR          PHEVGSVQWAGSTFGPMQKSRL GEHEFEALMRMLDNLGYRTGYTYRHPFVQEKT          KHKSEVEI PATVTAFAVFEEDGAPVPALRQHAQKQKQKEKTRWLNTPNAY LRVNVAD          EVQRSMGSPRPKTTWMKADEVEKSSSGMPIRIE NPNQFVPLYTDPQEVLEMRNKI          REQNRQDVKSAGPQSLL ASVIAEKSRSPSTESQLMSKGDEDTKDDSEETVPNPF          SQL TDQEELEYKKEVERKKLELDGEKETAPEEPGSPAKSAPAS PVQSPAKEAETK          SPLVSPSKSLEEGTKKTETSKAATTEPE TTQPEGVVVNGREEEQTAEIILSKGLSQ          MTTADTDVDTSD KDKTESVTSGPMSPEGSPSKSPSKKKKKKFRTPSFLKSKK KEK          VES</p>

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**Sequence Similarities** Belongs to the aldolase class II family. Adducin subfamily.

## GENE INFORMATION

**Gene Name** [ADD2 adducin 2 \(beta\) \[ Homo sapiens \]](#)

**Official Symbol** [ADD2](#)

**Synonyms** ADD2; adducin 2 (beta); beta-adducin; ADDB;

**Gene ID** [119](#)

**mRNA Refseq** [NM\\_001185054](#)

**Protein Refseq** [NP\\_001171983](#)

**MIM** [102681](#)

**Uniprot ID** [P35612](#)

**Chromosome Location** 2p13.3

**Function** actin binding; actin filament binding; calmodulin binding; metal ion binding; protein heterodimerization activity;

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