Recombinant Human ADD2

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

SPECIFICATION

Product Overview	Recombinant full length Human Adducin 2 with a N terminal proprietary tag; Predicted MW 105.93 kDa.
Species	Human
Source	Wheat Germ
ProteinLength	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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Molecular Weight	105.930kDa inclusive of tags
Tissue specificity	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.
Form	Liquid
Purity	Proprietary Purification
Storage buffer	pH: 8.00Constituents:0.79% Tris HCl, 0.3% Glutathione
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	MSEETVPEAASPPPPQGQPYFDRFSEDDPEYMRLRNRAAD LRQDFNLMEQKKRV TMILQSPSFREELEGLIQEQMKKGNN SSNIWALRQIADFMASTSHAVFPTSSMNVS MMTPINDLHT ADSLNLAKGERLMRCKISSVYRLLDLYGWAQLSDTYVTLR VSKEQD HFLISPKGVSCSEVTASSLIKVNILGEVVEKGSS CFPVDTTGFCLHSAIYAARPDVRCI IHLHTPATAAVSAMK WGLLPVSHNALLVGDMAYYDFNGEMEQEADRINLQKCLGP TCKILVLRNHGVVALGDTVEEAFYKIFHLQAACEIQVSAL SSAGGVENLILLEQEKHR PHEVGSVQWAGSTFGPMQKSRL GEHEFEALMRMLDNLGYRTGYTYRHPFVQEKT KHKSEVEI PATVTAFVFEEDGAPVPALRQHAQKQQKEKTRWLNTPNAY LRVNVAD EVQRSMGSPRPKTTWMKADEVEKSSSGMPIRIE NPNQFVPLYTDPQEVLEMRNKI REQNRQDVKSAGPQSQLL ASVIAEKSRSPSTESQLMSKGDEDTKDDSEETVPNPF SQL TDQELEEYKKEVERKKLELDGEKETAPEEPGSPAKSAPAS PVQSPAKEAETK SPLVSPSKSLEEGTKKTETSKAATTEPE TTQPEGVVVNGREEEQTAEEILSKGLSQ MTTSADTDVDTS KDKTESVTSGPMSPEGSPSKSPSKKKKKFRTPSFLKKSKK KEK VES

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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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