

Product datasheet for KN209129BN

OriGene Technologies, Inc.

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gamma Adducin (ADD3) Human Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)

Format: 2 gRNA vectors, 1 mBFP-Neo donor, 1 scramble control

Donor DNA: mBFP-Neo

Symbol: gamma Adducin

Locus ID: 120

Components: KN209129G1, gamma Adducin gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN209129G2, gamma Adducin gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) **KN209129BND**, donor DNA containing left and right homologous arms and mBFP-Neo

functional cassette.

GE100003, scramble sequence in pCas-Guide vector

Disclaimer: These products are manufactured and supplied by OriGene under license from ERS. The kit is

designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the

experimental process.

RefSeq: NM 001121, NM 016824, NM 019903, NM 001320591, NM 001320592, NM 001320593,

NM 001320594

UniProt ID: Q9UEY8
Synonyms: ADDL

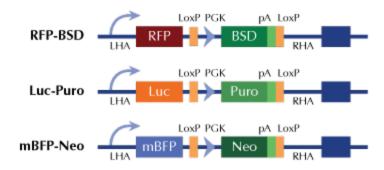


Summary:

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. [provided by RefSeq, Jul 2008]

Product images:

Donor Vector Edited Chromosome



RFP, Luc, and mBFP will be under native gene promoter