

Product datasheet for KN202921BN

OriGene Technologies, Inc.

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Presenilin 2 (PSEN2) 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: Presenilin 2

Locus ID: 5664

Components: KN202921G1, Presenilin 2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN202921G2, Presenilin 2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) **KN202921BND**, donor DNA containing left and right homologous arms and mBFP-Neo

functional cassette.

GE100003, scramble sequence in pCas-Guide vector

RefSeq: <u>NM 000447</u>, <u>NM 012486</u>

UniProt ID: P49810

Synonyms: AD3L; AD4; CMD1V; PS2; STM2

Summary: Alzheimer's disease (AD) patients with an inherited form of the disease carry mutations in the

presenilin proteins (PSEN1 or PSEN2) or the amyloid precursor protein (APP). These disease-linked mutations result in increased production of the longer form of amyloid-beta (main component of amyloid deposits found in AD brains). Presenilins are postulated to regulate APP processing through their effects on gamma-secretase, an enzyme that cleaves APP. Also, it is thought that the presenilins are involved in the cleavage of the Notch receptor such that,

they either directly regulate gamma-secretase activity, or themselves act are protease enzymes. Two alternatively spliced transcript variants encoding different isoforms of PSEN2

have been identified. [provided by RefSeq, Jul 2008]





Product images:

Donor Vector Edited Chromosome



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