

Product datasheet for KN201765BN

OriGene Technologies, Inc.

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p21 (CDKN1A) 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:
 p21

 Locus ID:
 1026

Components: KN201765G1, p21 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN201765G2, p21 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN201765BND, donor DNA containing left and right homologous arms and mBFP-Neo

functional cassette.

GE100003, scramble sequence in pCas-Guide vector

RefSeq: NM 000389, NM 001220777, NM 001220778, NM 001291549, NM 078467, NR 037150,

NR 037151, NR 037152

UniProt ID: P38936

Synonyms: CAP20; CDKN1; CIP1; MDA-6; P21; p21CIP1; SDI1; WAF1

Summary: This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded protein binds to

and inhibits the activity of cyclin-cyclin-dependent kinase2 or -cyclin-dependent kinase4 complexes, and thus functions as a regulator of cell cycle progression at G1. The expression of this gene is tightly controlled by the tumor suppressor protein p53, through which this protein mediates the p53-dependent cell cycle G1 phase arrest in response to a variety of stress stimuli. This protein can interact with proliferating cell nuclear antigen, a DNA

polymerase accessory factor, and plays a regulatory role in S phase DNA replication and DNA damage repair. This protein was reported to be specifically cleaved by CASP3-like caspases,

gene have the ability to regenerate damaged or missing tissue. Multiple alternatively spliced

which thus leads to a dramatic activation of cyclin-dependent kinase2, and may be instrumental in the execution of apoptosis following caspase activation. Mice that lack this

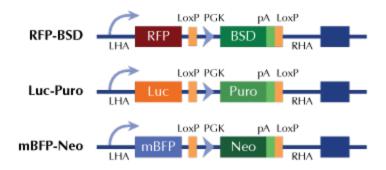
variants have been found for this gene. [provided by RefSeq, Sep 2015]





Product images:

Donor Vector Edited Chromosome



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