

Product datasheet for KN208050BN

OriGene Technologies, Inc.

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NKG2D (KLRK1) 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: NKG2D
Locus ID: 22914

Components: KN208050G1, NKG2D gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN208050G2, NKG2D gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN208050BND, donor DNA containing left and right homologous arms and mBFP-Neo

functional cassette.

GE100003, scramble sequence in pCas-Guide vector

RefSeq: <u>NM 007360</u>

UniProt ID: <u>P26718</u>

Synonyms: CD314; D12S2489E; KLR; NKG2-D; NKG2D

Summary: Natural killer (NK) cells are lymphocytes that can mediate lysis of certain tumor cells and

virus-infected cells without previous activation. They can also regulate specific humoral and cell-mediated immunity. NK cells preferentially express several calcium-dependent (C-type) lectins, which have been implicated in the regulation of NK cell function. The NKG2 gene family is located within the NK complex, a region that contains several C-type lectin genes preferentially expressed in NK cells. This gene encodes a member of the NKG2 family. The encoded transmembrane protein is characterized by a type II membrane orientation (has an extracellular C terminus) and the presence of a C-type lectin domain. It binds to a diverse family of ligands that include MHC class I chain-related A and B proteins and UL-16 binding proteins, where ligand-receptor interactions can result in the activation of NK and T cells. The surface expression of these ligands is important for the recognition of stressed cells by the immune system, and thus this protein and its ligands are therapeutic targets for the treatment of immune diseases and cancers. Read-through transcription exists between this gene and the upstream KLRC4 (killer cell lectin-like receptor subfamily C, member 4) family

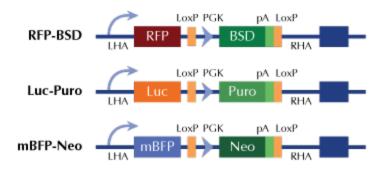
member in the same cluster. [provided by RefSeq, Dec 2010]





Product images:

Donor Vector Edited Chromosome



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