

## Product datasheet for **KN208818**

### BCDIN3D Human Gene Knockout Kit (CRISPR)

#### Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 GFP-puro donor, 1 scramble control
Donor DNA:	GFP-puro
Symbol:	BCDIN3D
Locus ID:	144233
Components:	<p><b>KN208818G1</b>, BCDIN3D gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGAAGAGGAATCGCGAGTTC</p> <p><b>KN208818G2</b>, BCDIN3D gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TTTCCGAACGGGCGGCGCC</p> <p><b>KN208818D</b>, donor DNA containing left and right homologous arms and GFP-puro functional cassette.</p>

#### Homologous arm and GFP-puro sequences:

pUC vector backbone in gray; Left arm sequence in blue; GFP-puro in green; Right arm in violet

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AAGTGCTGGC TCTAAGGCA CGGTCCTTGC CTCTCAAGGA GCTCATGGTC TACAGTTGCC CCTGGGGGAC
AGGGCTGAGT CGGCTGGCTT CGCAAGTGAC CTGCACCTCC TGGCTACCCT TTCCTGAACC GGGTGGAAAT
TTTTGAGTCA CAGATTCAAT GTATGACCCC AGACAAGTAA GTTCTCTCGG TCTCACTTTT TGCATTTATA
AAGAAAGGAA ATTGGACTAA AATTGATTTC CAAGATCCCA ACAAACTAGT ATACTTGTTC TGGGTCAAGT
AGCCCAAGTT TCAAATATG TCAGCTTGGC CAAGACACTT AGCCCTCAGA GTTTGTTTCA TCCCTGTAAA
ACGTGGATGA TATTGCTAAT CCCCTCCAG TGTGTGATG AGGGTTCAAT AATACAAGGC AAGCCCCAGG
CGCTCGCCGG CTCCAGGTAT ACAGCGAGAG GAAATCAGGA CAGCTTTTCT GATTCACCGC AGAATTCTAG
CCACCCGCCC TAGCCGTTTC ACGCACGCGC GCTGGCACCG CCACCGCCCA CGCCGACAGC AGGTTCCCGG
CTTCCGGTTC CGCCACGGCC CAGAGGCTGT GTTGAGGCTA CTCCGCCTCC TGCCCCCGGA GCTGCTTCGA
CAGCTCTTTC CTGAGAGTCC CGAGAACGGG CCGATTCTGG GGCTCGACGT GGGGTGTAAC TCCGGGGTGA
GTGACAGGGG AGGGATTGGA GCATCCGGAG CCAAGTGGTT GGCTGCCTAC ACATCCACTG TGGTTCTGGC
CTGGGCTAAC ACCCATCGAA ACTTTCCAA AACGAGTATA AAGCGTGGCT TTGACTGAGC CAGTGCCGCT
GCTGCCTGCC CGCCAGGGTT CCACCATCTG TCTTAGGAAT CTCTCTTGA GAGGAGTCTT TGTCGACTAC
GTTCCCACTT TTCTTTCAGG GCCAGACCCC AGGTGGGAAAC GGTCTTGTGA TCTAGGGTGG CCTCTGTCCA
GCGTGCCTGG CGCTTTGGCT GGGGAGAGGG GGCTTCCAGA GACACACGTT TGGGAACATG GGGTTAGGTT
TGGTTTACTG GGAGAGAAGA GCCAAGGGTG ACAGAATCAT GCCTGATATT GAGACTCATG TGTGCTATAC
AGTGCAGGAC AGACCCTGGG ACCTGCATGT TTATTTCAA AAAAGTGAGT AGGCCGGGCG CGCTGGCTCA
CGCCTGTAAT

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**GE100003**, scramble sequence in pCas-Guide vector



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**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\\_181708](#)

**UniProt ID:** [Q7Z5W3](#)

**Synonyms:** BCDIN3 domain containing

**Summary:** This gene encodes an RNA methyltransferase which belongs to the rossmann fold methyltransferase family, and serves as a 5'-methylphosphate capping enzyme that is specific for cytoplasmic histidyl tRNA. The encoded protein contains an S-adenosylmethionine binding domain and uses the methyl group donor, S-adenosylmethionine. This gene is overexpressed in breast cancer cells, and is related to the tumorigenic phenotype and poor prognosis of breast cancer. The encoded protein is thought to promote the cellular invasion of breast cancer cells, by downregulating the expression of tumor suppressor miRNAs through the dimethylation of the 5-monophosphate of the corresponding precursor miRNAs. [provided by RefSeq, Apr 2017]

### Product images:

