

Product datasheet for KN200313BN

OriGene Technologies, Inc.

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IDH3A 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: IDH3A

Locus ID: 3419

Components: KN200313G1, IDH3A gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN200313G2, IDH3A gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN200313BND, 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: <u>NM 005530</u>

UniProt ID: P50213

Synonyms: H-IDH alpha; isocitrate dehydrogenase (NAD+) alpha chain; isocitrate dehydrogenase 3

(NAD+) a; isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial; isocitric

dehydrogenase; NAD(H)-specific isocitrate dehydrogenase alpha subunit; NAD+-specific ICDH

Summary: Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-

oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been

reported: three NAD(+)-dependent isocitrate dehydrogenases, which localize to the

mitochondrial matrix, and two NADP(+)-dependent isocitrate dehydrogenases, one of which

is mitochondrial and the other predominantly cytosolic. NAD(+)-dependent isocitrate

dehydrogenases catalyze the allosterically regulated rate-limiting step of the tricarboxylic acid cycle. Each isozyme is a heterotetramer that is composed of two alpha subunits, one beta subunit, and one gamma subunit. The protein encoded by this gene is the alpha subunit of one isozyme of NAD(+)-dependent isocitrate dehydrogenase. [provided by RefSeq, Jul 2008]





Product images:

Donor Vector Edited Chromosome



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