

Product datasheet for KN210866RB

OriGene Technologies, Inc.

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SMURF 2 (SMURF2) Human Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)

Format: 2 gRNA vectors, 1 RFP-BSD donor, 1 scramble control

Donor DNA: RFP-BSD Symbol: SMURF 2 Locus ID: 64750

Components: KN210866G1, SMURF 2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN210866G2, SMURF 2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) **KN210866RBD**, donor DNA containing left and right homologous arms and RFP-BSD

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:
 NM 022739

 UniProt ID:
 Q9HAU4

Synonyms: DKFZp686F0270; MGC138150

Summary: E3 ubiquitin-protein ligase which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme

in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. Interacts with SMAD1 and SMAD7 in order to trigger their ubiquitination and proteasomedependent degradation. In addition, interaction with SMAD7 activates autocatalytic

degradation, which is prevented by interaction with SCYE1. Forms a stable complex with the TGF-beta receptor-mediated phosphorylated SMAD2 and SMAD3. In this way, SMAD2 may

recruit substrates, such as SNON, for ubiquitin-mediated degradation. Enhances the

inhibitory activity of SMAD7 and reduces the transcriptional activity of SMAD2. Coexpression of SMURF2 with SMAD1 results in considerable decrease in steady-state level of SMAD1

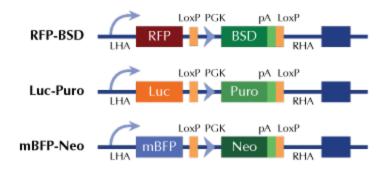
protein and a smaller decrease of SMAD2 level.[UniProtKB/Swiss-Prot Function]





Product images:

Donor Vector Edited Chromosome



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