

## Product datasheet for **KN210866RB**

### 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:	<b>KN210866G1</b> , SMURF 2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002) <b>KN210866G2</b> , SMURF 2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) <b>KN210866RBD</b> , donor DNA containing left and right homologous arms and RFP-BSD functional cassette. <b>GE100003</b> , 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:	<a href="#">NM_022739</a>
UniProt ID:	<a href="#">Q9HAU4</a>
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 proteasome-dependent 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]



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## Product images:

