

Product datasheet for KN213143LP

OriGene Technologies, Inc.

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Factor VII (F7) Human Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)

Format: 2 gRNA vectors, 1 Luciferase-Puro donor, 1 scramble control

Donor DNA: Luciferase-Puro

Symbol: Factor VII

Locus ID: 2155

Components: KN213143G1, Factor VII gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN213143G2, Factor VII gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN213143LPD, donor DNA containing left and right homologous arms and Luciferase-Puro

functional cassette.

GE100003, scramble sequence in pCas-Guide vector

RefSeq: <u>NM 000131, NM 001267554, NM 019616, NR 051961</u>

UniProt ID: P08709
Synonyms: SPCA

Summary: This gene encodes coagulation factor VII which is a vitamin K-dependent factor essential for

hemostasis. This factor circulates in the blood in a zymogen form, and is converted to an active form by either factor IXa, factor Xa, factor XIIa, or thrombin by minor proteolysis. Upon activation of the factor VII, a heavy chain containing a catalytic domain and a light chain containing 2 EGF-like domains are generated, and two chains are held together by a disulfide bond. In the presence of factor III and calcium ions, the activated factor then further activates the coagulation cascade by converting factor IX to factor IXa and/or factor X to factor Xa. Defects in this gene can cause coagulopathy. Alternative splicing results in multiple transcript variants encoding different isoforms that may undergo similar proteolytic processing to

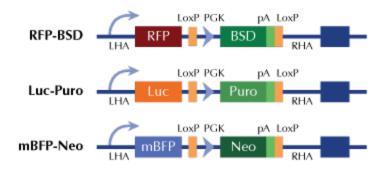
generate mature polypeptides. [provided by RefSeq, Aug 2015]





Product images:

Donor Vector Edited Chromosome



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