

Product datasheet for KN207515LP

OriGene Technologies, Inc.

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TLR7 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: TLR7 Locus ID: 51284

Components: KN207515G1, TLR7 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN207515G2, TLR7 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN207515LPD, donor DNA containing left and right homologous arms and Luciferase-Puro

functional cassette.

GE100003, scramble sequence in pCas-Guide vector

RefSeq: <u>NM 016562</u>

UniProt ID: Q9NYK1
Synonyms: TLR7-like

Summary: The protein encoded by this gene is a member of the Toll-like receptor (TLR) family which

plays a fundamental role in pathogen recognition and activation of innate immunity. TLRs are highly conserved from Drosophila to humans and share structural and functional similarities.

The human TLR family comprises 11 members. They recognize pathogen-associated molecular patterns (PAMPs) that are expressed on infectious agents, and mediate the production of cytokines necessary for the development of effective immunity. For the recognition of structural components in foreign microorganisms, the various TLRs exhibit different patterns of expression as well; in this way for example, TLR-3, -7, and -8 are essential in the recognition of single-stranded RNA viruses. TLR7 senses single-stranded RNA

oligonucleotides containing guanosine- and uridine-rich sequences from RNA viruses, a recognition occurring in the endosomes of plasmacytoid dendritic cells and B cells. This gene is predominantly expressed in lung, placenta, and spleen, and is phylogenetically related and lies in close proximity to another family member, TLR8, on chromosome X. [provided by

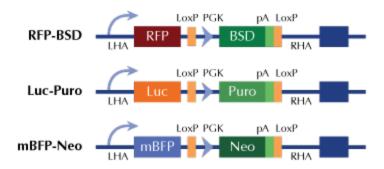
RefSeq, Aug 2020]





Product images:

Donor Vector Edited Chromosome



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