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Product datasheet for TL315490

CD19 Human shRNA Plasmid Kit (Locus ID 930)

Product data:

Product Type:	shRNA Plasmids
Product Name:	CD19 Human shRNA Plasmid Kit (Locus ID 930)
Locus ID:	930
Synonyms:	B4; CVID3
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	CD19 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 930). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	NM_001178098, NM_001770, NM_001770.1, NM_001770.2, NM_001770.3, NM_001770.4, NM_001770.5, NM_001178098.1, BC006338, BC052294, NM_001178098.2, NM_001770.6
UniProt ID:	P15391

View online »

Summary:

This gene encodes a member of the immunoglobulin gene superfamily. Expression of this cell surface protein is restricted to B cell lymphocytes. This protein is a reliable marker for pre-B cells but its expression diminishes during terminal B cell differentiation in antibody secreting plasma cells. The protein has two N-terminal extracellular Ig-like domains separated by a non-Ig-like domain, a hydrophobic transmembrane domain, and a large C-terminal cytoplasmic domain. This protein forms a complex with several membrane proteins including complement receptor type 2 (CD21) and tetraspanin (CD81) and this complex reduces the threshold for antigen-initiated B cell activation. Activation of this B-cell antigen receptor complex activates the phosphatidylinositol 3-kinase signalling pathway and the subsequent release of intracellular stores of calcium ions. This protein is a target of chimeric antigen receptor (CAR) T-cells used in the treatment of lymphoblastic leukemia. Mutations in this gene are associated with the disease common variable immunodeficiency 3 (CVID3) which results in a failure of B-cell differentiation and impaired secretion of immunoglobulins. CVID3 is characterized by hypogammaglobulinemia, an inability to mount an antibody response to antigen, and recurrent bacterial infections. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2020]

shRNA Design:

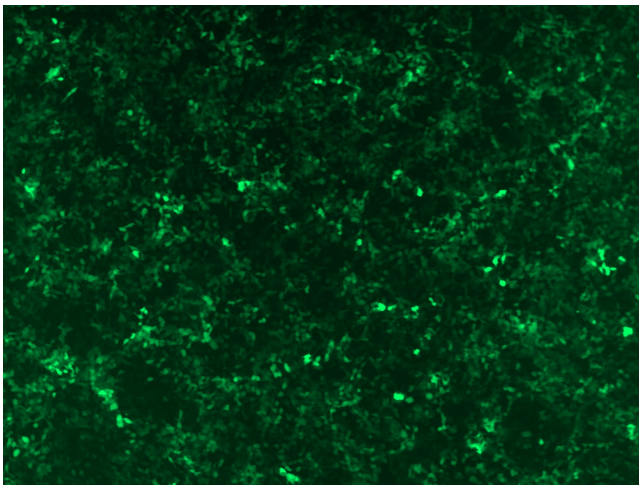
These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com. If you need a special design or shRNA sequence, please utilize our custom shRNA service.

Performance Guaranteed:

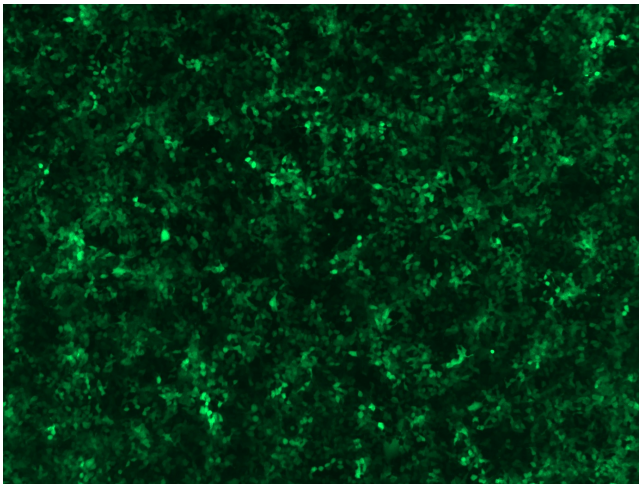
OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).

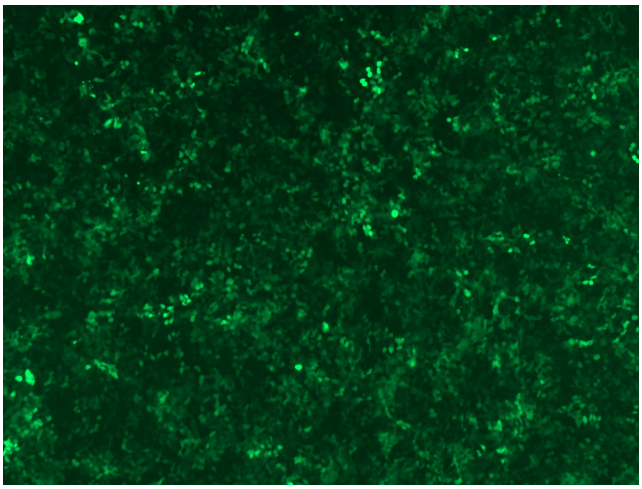
Product images:



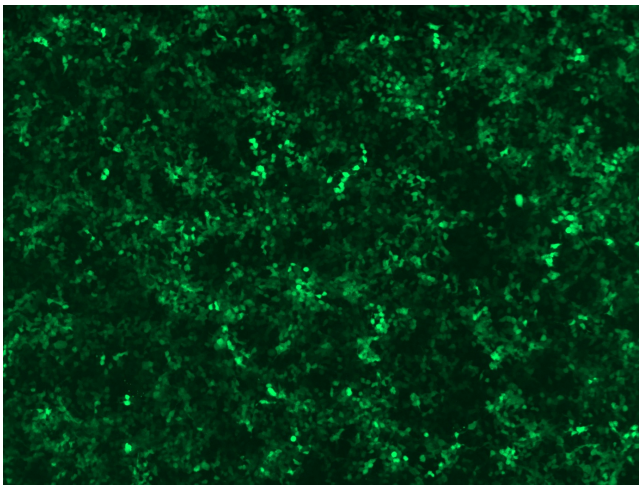
GFP signal was observed under microscope at 48 hours after transduction of TL315490A virus into HEK293 cells. TL315490A virus was prepared using lenti-shRNA TL315490A and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of TL315490B virus into HEK293 cells. TL315490B virus was prepared using lenti-shRNA TL315490B and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL315490C] virus into HEK293 cells. [TL315490C] virus was prepared using lenti-shRNA [TL315490C] and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL315490D] virus into HEK293 cells. [TL315490D] virus was prepared using lenti-shRNA [TL315490D] and [TR30037] packaging kit.