

# Product datasheet for TL504566

### Ifih1 Mouse shRNA Plasmid (Locus ID 71586)

### **Product data:**

#### OriGene Technologies, Inc.

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Product Type:	shRNA Plasmids
Product Name:	lfih1 Mouse shRNA Plasmid (Locus ID 71586)
Locus ID:	71586
Synonyms:	9130009C22Rik; Helicard; Hlcd; MDA5; RLR-2
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	lfih1 - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 71586). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	BC080200, NM 001164477, NM 027835, NM 001164477.1, NM 027835.1, NM 027835.2, NM 027835.3, BC004031, BC019605, BC025508
UniProt ID:	<u>Q8R5F7</u>



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#### **GRIGENE** Ifih1 Mouse shRNA Plasmid (Locus ID 71586) – TL504566

Summary:	Innate immune receptor which acts as a cytoplasmic sensor of viral nucleic acids and plays a major role in sensing viral infection and in the activation of a cascade of antiviral responses including the induction of type I interferons and proinflammatory cytokines. Its ligands include mRNA lacking 2'-O-methylation at their 5' cap and long-dsRNA (>1 kb in length). Upon ligand binding it associates with mitochondria antiviral signaling protein (MAVS/IPS1) which activates the IKK-related kinases: TBK1 and IKBKE which phosphorylate interferon regulatory factors: IRF3 and IRF7 which in turn activate transcription of antiviral immunological genes, including interferons (IFNs); IFN-alpha and IFN-beta. Responsible for detecting the Picornaviridae family members such as encephalomyocarditis virus (EMCV), mengo encephalomyocarditis virus (ENMG), and theiler's murine encephalomyelitis virus (TMEV). Can also detect other viruses such as dengue virus (DENV), west Nile virus (WNV), and reovirus. Also involved in antiviral signaling in response to viruses containing a dsDNA genome, such as vaccinia virus. Plays an important role in amplifying innate immune signaling through recognition of RNA metabolites that are produced during virus infection by ribonuclease L (RNase L). May play an important role in enhancing natural killer cell function and may be involved in growth inbibition and apontosis in several tumor cell lines [UniProtKB/Swiss-Prot
	Function]
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 <u>techsupport@origene.com</u> . If you need a special design or shRNA sequence, please utilize our <u>custom shRNA service</u> .
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).

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## **Product images:**



GFP signal was observed under microscope at 48 hours after transduction of TL504566A virus into HEK293 cells. TL504566A virus was prepared using lenti-shRNA TL504566A and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of TL504566B virus into HEK293 cells. TL504566B virus was prepared using lenti-shRNA TL504566B and [TR30037] packaging kit.

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GFP signal was observed under microscope at 48 hours after transduction of [TL504566C] virus into HEK293 cells. [TL504566C] virus was prepared using lenti-shRNA [TL504566C] and [TR30037] packaging kit.

GFP signal was observed under microscope at 48 hours after transduction of [TL504566D] virus into HEK293 cells. [TL504566D] virus was prepared using lenti-shRNA [TL504566D] and [TR30037] packaging kit.

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