

## **Product datasheet for TF501042**

## **Ifit1 Mouse shRNA Plasmid (Locus ID 15957)**

## **Product data:**

**Product Type:** shRNA Plasmids

**Product Name:** Ifit1 Mouse shRNA Plasmid (Locus ID 15957)

**Locus ID:** 15957

Synonyms: Ifi56; ISG56; P56

**Vector:** pRFP-C-RS (TR30014)

E. coli Selection: Chloramphenicol (34 ug/ml)

**Mammalian Cell** 

Selection:

Puromycin

Format: Retroviral plasmids

**Components:** Ifit1 - Mouse, 4 unique 29mer shRNA constructs in retroviral RFP vector(Gene ID = 15957).

5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pRFP-C-RS Vector, TR30015, included for free.

**RefSeq:** <u>BC003768, NM 008331, NM 008331.1, NM 008331.2, NM 008331.3</u>

UniProt ID: Q64282

**Summary:** Interferon-induced antiviral RNA-binding protein that specifically binds single-stranded RNA

bearing a 5'-triphosphate group (PPP-RNA), thereby acting as a sensor of viral single-stranded RNAs and inhibiting expression of viral messenger RNAs. Single-stranded PPP-RNAs, which lack 2'-O-methylation of the 5' cap and bear a 5'-triphosphate group instead, are specific from viruses, providing a molecular signature to distinguish between self and non-self mRNAs by the host during viral infection. Directly binds PPP-RNA in a non-sequence-specific manner. Viruses evolved several ways to evade this restriction system such as encoding their own 2'-O-methylase for their mRNAs or by stealing host cap containing the 2'-O-methylation

(cap snatching mechanism).[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>.



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## 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).