

## Product datasheet for **TL312275**

### ORP150 (HYOU1) Human shRNA Plasmid Kit (Locus ID 10525)

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | shRNA Plasmids   |
| Product Name:             | ORP150 (HYOU1) Human shRNA Plasmid Kit (Locus ID 10525)  |
| Locus ID:                 | 10525  |
| Synonyms:                 | GRP-170; Grp170; HSP12A; IMD59; ORP-150; ORP150  |
| Vector:                   | pGFP-C-shLenti (TR30023)   |
| E. coli Selection:        | Chloramphenicol (34 ug/ml)   |
| Mammalian Cell Selection: | Puromycin  |
| Format:                   | Lentiviral plasmids  |
| Components:               | HYOU1 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 10525).<br>5µg purified plasmid DNA per construct<br>29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.   |
| RefSeq:                   | <a href="#">NM_001130991</a> , <a href="#">NM_006389</a> , <a href="#">NM_006389.1</a> , <a href="#">NM_006389.2</a> , <a href="#">NM_006389.3</a> , <a href="#">NM_006389.4</a> ,<br><a href="#">NM_001130991.1</a> , <a href="#">NM_001130991.2</a> , <a href="#">BC004560</a> , <a href="#">BC017726</a> , <a href="#">BC072436</a> , <a href="#">NM_001130991.3</a>  |
| UniProt ID:               | <a href="#">Q9Y4L1</a>   |
| Summary:                  | The protein encoded by this gene belongs to the heat shock protein 70 family. This gene uses alternative transcription start sites. A cis-acting segment found in the 5' UTR is involved in stress-dependent induction, resulting in the accumulation of this protein in the endoplasmic reticulum (ER) under hypoxic conditions. The protein encoded by this gene is thought to play an important role in protein folding and secretion in the ER. Since suppression of the protein is associated with accelerated apoptosis, it is also suggested to have an important cytoprotective role in hypoxia-induced cellular perturbation. This protein has been shown to be up-regulated in tumors, especially in breast tumors, and thus it is associated with tumor invasiveness. This gene also has an alternative translation initiation site, resulting in a protein that lacks the N-terminal signal peptide. This signal peptide-lacking protein, which is only 3 amino acids shorter than the mature protein in the ER, is thought to have a housekeeping function in the cytosol. In rat, this protein localizes to both the ER by a carboxy-terminal peptide sequence and to mitochondria by an amino-terminal targeting signal. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2014] |



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|--------------------------------|---|
| <b>shRNA Design:</b>           | 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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a> . If you need a special design or shRNA sequence, please utilize our <a href="#">custom shRNA service</a> .  |
| <b>Performance Guaranteed:</b> | <p>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.</p> <p>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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a>. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).</p> |