

## Product datasheet for **TG314440**

### BRCA1 Human shRNA Plasmid Kit (Locus ID 672)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	BRCA1 Human shRNA Plasmid Kit (Locus ID 672)
Locus ID:	672
Synonyms:	BRCA1; BRCC1; BROVCA1; FANCS; IRIS; PNCA4; PPP1R53; PSCP; RNF53
Vector:	pGFP-V-RS (TR30007)
E. coli Selection:	Kanamycin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	BRCA1 - Human, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 672). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.
RefSeq:	<a href="#">NM_007294</a> , <a href="#">NM_007295</a> , <a href="#">NM_007296</a> , <a href="#">NM_007297</a> , <a href="#">NM_007298</a> , <a href="#">NM_007299</a> , <a href="#">NM_007300</a> , <a href="#">NM_007301</a> , <a href="#">NM_007302</a> , <a href="#">NM_007303</a> , <a href="#">NM_007304</a> , <a href="#">NM_007305</a> , <a href="#">NM_007306</a> , <a href="#">NR_027676</a> , <a href="#">NM_007299.1</a> , <a href="#">NM_007299.2</a> , <a href="#">NM_007299.3</a> , <a href="#">NM_007294.1</a> , <a href="#">NM_007294.2</a> , <a href="#">NM_007294.3</a> , <a href="#">NM_007297.1</a> , <a href="#">NM_007297.2</a> , <a href="#">NM_007297.3</a> , <a href="#">NM_007300.1</a> , <a href="#">NM_007300.2</a> , <a href="#">NM_007300.3</a> , <a href="#">NM_007298.1</a> , <a href="#">NM_007298.2</a> , <a href="#">NM_007298.3</a> , <a href="#">NM_007302.2</a> , <a href="#">NM_007304.2</a> , <a href="#">NM_007295.2</a> , <a href="#">NM_007303.2</a> , <a href="#">NM_007301.2</a> , <a href="#">BC115037</a> , <a href="#">BC012577</a> , <a href="#">BC030969</a> , <a href="#">BC038947</a> , <a href="#">BC046142</a> , <a href="#">BC062429</a> , <a href="#">BC072418</a> , <a href="#">BC085615</a> , <a href="#">BC106745</a> , <a href="#">BC106746</a> , <a href="#">BC114511</a> , <a href="#">BC114562</a> , <a href="#">NM_007297.4</a> , <a href="#">NM_007299.4</a> , <a href="#">NM_007294.4</a>
UniProt ID:	<a href="#">P38398</a>



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<b>Summary:</b>	<p>This gene encodes a 190 kD nuclear phosphoprotein that plays a role in maintaining genomic stability, and it also acts as a tumor suppressor. The BRCA1 gene contains 22 exons spanning about 110 kb of DNA. The encoded protein combines with other tumor suppressors, DNA damage sensors, and signal transducers to form a large multi-subunit protein complex known as the BRCA1-associated genome surveillance complex (BASC). This gene product associates with RNA polymerase II, and through the C-terminal domain, also interacts with histone deacetylase complexes. This protein thus plays a role in transcription, DNA repair of double-stranded breaks, and recombination. Mutations in this gene are responsible for approximately 40% of inherited breast cancers and more than 80% of inherited breast and ovarian cancers. Alternative splicing plays a role in modulating the subcellular localization and physiological function of this gene. Many alternatively spliced transcript variants, some of which are disease-associated mutations, have been described for this gene, but the full-length natures of only some of these variants has been described. A related pseudogene, which is also located on chromosome 17, has been identified. [provided by RefSeq, May 2020]</p>
<b>shRNA Design:</b>	<p>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>.</p>
<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>