OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TG320350

Estrogen Related Receptor gamma (ESRRG) Human shRNA Plasmid Kit (Locus ID 2104)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Estrogen Related Receptor gamma (ESRRG) Human shRNA Plasmid Kit (Locus ID 2104)
Locus ID:	2104
Synonyms:	ERR-gamma; ERR3; ERRg; ERRgamma; NR3B3
Vector:	pGFP-V-RS (TR30007)
E. coli Selection:	Kanamycin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	ESRRG - Human, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 2104). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.
RefSeq:	NM_001134285, NM_001243505, NM_001243506, NM_001243507, NM_001243509, NM_001243510, NM_001243511, NM_001243512, NM_001243513, NM_001243514, NM_001243515, NM_001243518, NM_001243519, NM_001438, NM_206594, NM_206595, NR_024099, NM_001350122, NM_001350123, NM_001350124, NM_001350125, NM_206594.2, NM_206595.1, NM_206595.2, NM_001438.1, NM_001438.2, NM_001438.3, NM_001134285.1, NM_001134285.2, NM_001243505.1, NM_001243506.1, NM_001243507.1, NM_001243509.1, NM_001243510.1, NM_001243510.2, NM_001243511.1, NM_001243511.2, NM_001243512.1, NM_001243513.1, NM_001243514.1, NM_001243515.1, NM_001243519.1, NM_001243518.1, BC008218, BC064700, BM723962, NM_001243510.3, NM_001243509.2, NM_001243514.2, NM_001134285.3, NM_001243511.3, NM_001243505.2, NM_001243515.2, NM_001243506.2, NM_001243518.2, NM_206595.3, NM_001243507.2, NM_001438.4
UniProt ID:	P62508

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Summary:

This gene encodes a member of the estrogen receptor-related receptor (ESRR) family, which belongs to the nuclear hormone receptor superfamily. All members of the ESRR family share an almost identical DNA binding domain, which is composed of two C4-type zinc finger motifs. The ESRR members are orphan nuclear receptors; they bind to the estrogen response element and steroidogenic factor 1 response element, and activate genes controlled by both response elements in the absence of any ligands. The ESRR family is closely related to the estrogen receptor (ER) family. They share target genes, co-regulators and promoters, and by targeting the same set of genes, the ESRRs seem to interfere with the ER-mediated estrogen response in various ways. It has been reported that the family member encoded by this gene functions as a transcriptional activator of DNA cytosine-5-methyltransferases 1 (Dnmt1) expression by direct binding to its response elements in the DNMT1 promoters, modulates cell proliferation and estrogen signaling in breast cancer, and negatively regulates bone morphogenetic protein 2-induced osteoblast differentiation and bone formation. Multiple alternatively spliced transcript variants have been identified, which mainly differ at the 5' end and some of which encode protein isoforms differing in the N-terminal region. [provided by RefSeq, Aug 2011]

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).