

#### OriGene Technologies, Inc.

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# Product datasheet for KN213277RB

### Estrogen Receptor 1 (ESR1) Human Gene Knockout Kit (CRISPR)

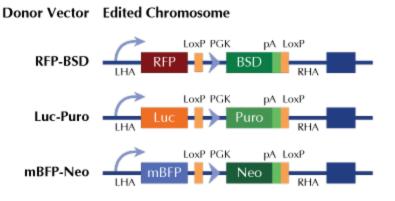
### **Product data:**

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 RFP-BSD donor, 1 scramble control
Donor DNA:	RFP-BSD
Symbol:	Estrogen Receptor 1
Locus ID:	2099
Components:	<ul> <li>KN213277G1, Estrogen Receptor 1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)</li> <li>KN213277G2, Estrogen Receptor 1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)</li> <li>KN213277RBD, donor DNA containing left and right homologous arms and RFP-BSD functional cassette.</li> <li>GE100003, scramble sequence in pCas-Guide vector</li> </ul>
RefSeq:	<u>NM 000125, NM 001122740, NM 001122741, NM 001122742, NM 001291230, NM 001291230, NM 001291241, NM 001328100</u>
UniProt ID:	<u>P03372</u>
Synonyms:	ER; Era; ESR; ESRA; ESTRR; NR3A1
Summary:	This gene encodes an estrogen receptor and ligand-activated transcription factor. The canonical protein contains an N-terminal ligand-independent transactivation domain, a central DNA binding domain, a hinge domain, and a C-terminal ligand-dependent transactivation domain. The protein localizes to the nucleus where it may form either a homodimer or a heterodimer with estrogen receptor 2. The protein encoded by this gene regulates the transcription of many estrogen-inducible genes that play a role in growth, metabolism, sexual development, gestation, and other reproductive functions and is expressed in many non-reproductive tissues. The receptor encoded by this gene plays a key role in breast cancer, endometrial cancer, and osteoporosis. This gene is reported to have dozens of transcript variants due to the use of alternate promoters and alternative splicing, however, the full-length nature of many of these variants remain uncertain. [provided by RefSeq, Jul 2020]



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## **Product images:**



RFP, Luc, and mBFP will be under native gene promoter

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