

## Product datasheet for KN305380LP

#### OriGene Technologies, Inc.

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## **Esr1 Mouse Gene Knockout Kit (CRISPR)**

#### **Product data:**

**Product Type:** Knockout Kits (CRISPR)

**Format:** 2 gRNA vectors, 1 Luciferase-Puro donor, 1 scramble control

**Donor DNA:** Luciferase-Puro

Symbol: Esr1 Locus ID: 13982

**Components: KN305380G1**, Esr1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN305380G2, Esr1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN305380LPD, donor DNA containing left and right homologous arms and Luciferase-Puro

functional cassette.

**GE100003**, scramble sequence in pCas-Guide vector

**Disclaimer:** These products are manufactured and supplied by OriGene under license from ERS. The kit is

designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the

experimental process.

RefSeq: NM 001302531, NM 001302532, NM 001302533, NM 007956, NR 126357

UniProt ID: P19785

Synonyms: ER; ER-alpha; ERa; ERalpha; ESR; Estr; Estra; Nr3a1

**Summary:** This gene encodes an estrogen receptor, a member of the nuclear hormone family of

intracellular receptors. The encoded protein, activated by the sex hormone estrogen, is a transcription factor composed of several domains important for hormone binding, DNA binding, and activation of transcription. Estrogen and its receptors are essential for sexual development and reproductive function, but also play a role in other tissues such as bone. Similar genes in human have been implicated in pathological processes including breast cancer, endometrial cancer, and osteoporosis. Alternative splicing results in multiple

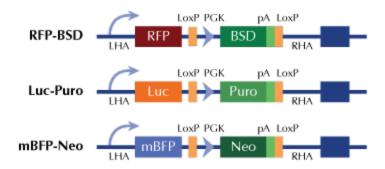
transcript variants. [provided by RefSeq, Oct 2014]





# **Product images:**

### Donor Vector Edited Chromosome



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