

## Product datasheet for **KN218468**

### DDI2 Human Gene Knockout Kit (CRISPR)

#### Product data:

**Product Type:** Knockout Kits (CRISPR)  
**Format:** 2 gRNA vectors, 1 GFP-puro donor, 1 scramble control  
**Donor DNA:** GFP-puro  
**Symbol:** DDI2  
**Locus ID:** 84301  
**Components:** **KN218468G1**, DDI2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TGCTCACCGTGTACTGTGTG  
**KN218468G2**, DDI2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CTGGAGGGAAAAGGTCACCT  
**KN218468D**, donor DNA containing left and right homologous arms and GFP-puro functional cassette.

Homologous arm and GFP-puro sequences:

pUC vector backbone in gray; **Left arm sequence in blue**; **GFP-puro in green**; **Right arm in violet**

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 TGGGGGATCA TGTAACCTCG CTT

**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\\_032341](#)

**UniProt ID:**

[Q5TDH0](#)

**Synonyms:**

RP4-680D5.5

**Summary:**

Aspartic protease that mediates the cleavage of NFE2L1/NRF1 at 'Leu-104', thereby promoting release of NFE2L1/NRF1 from the endoplasmic reticulum membrane (PubMed:27676298, PubMed:27528193). Ubiquitination of NFE2L1/NRF1 is a prerequisite for cleavage, suggesting that DDI2 specifically recognizes and binds ubiquitinated NFE2L1/NRF1 (PubMed:27528193). Seems to act as a proteasomal shuttle which links the proteasome and replication fork proteins like RTF2 (Probable). Required, with DDI1, for cellular survival following replication stress. Together or redundantly with DDI1, removes RTF2 from stalled forks to allow cell cycle progression after replication stress and maintains genome integrity (PubMed:29290612). [UniProtKB/Swiss-Prot Function]

Product images:

