

## Product datasheet for **KN211218**

### Tyrosine Hydroxylase (TH) 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:** Tyrosine Hydroxylase  
**Locus ID:** 7054  
**Components:** **KN211218G1**, Tyrosine Hydroxylase gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CCTGTGGCGTGGTGGCGTCC  
**KN211218G2**, Tyrosine Hydroxylase gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GTCTGAGCTGGACCCAAGC  
**KN211218D**, 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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TACAGGCATC GTGGTGTAC GCTCGTCGTT TGGTATGGCT TCATTCAGCT CCGGTTCCCA ACGATC

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**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\\_000360](#), [NM\\_199292](#), [NM\\_199293](#)

**UniProt ID:**

[P07101](#)

**Synonyms:**

DYT5b; DYT14; TYH

**Summary:**

The protein encoded by this gene is involved in the conversion of tyrosine to dopamine. It is the rate-limiting enzyme in the synthesis of catecholamines, hence plays a key role in the physiology of adrenergic neurons. Mutations in this gene have been associated with autosomal recessive Segawa syndrome. Alternatively spliced transcript variants encoding different isoforms have been noted for this gene. [provided by RefSeq, Jul 2008]

Product images:

