

Product datasheet for **KN213831**

PAK1 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:	PAK1
Locus ID:	5058
Components:	<p>KN213831G1, PAK1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: ACCAGCACTATGATTGGAGC</p> <p>KN213831G2, PAK1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGGGTTTGTCTTGAATGTCT</p> <p>KN213831D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.</p>

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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AGAAGTAAGT TGGCCGCAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
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 ACAGGCATCG TGGTGTACG CTCGCTGTTT GGTATGGCTT CATTACGCTC CGTTTCCCAA CGATC

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_001128620](#), [NM_002576](#)

UniProt ID:

[Q13153](#)

Synonyms:

PAKalpha

Summary:

This gene encodes a family member of serine/threonine p21-activating kinases, known as PAK proteins. These proteins are critical effectors that link RhoGTPases to cytoskeleton reorganization and nuclear signaling, and they serve as targets for the small GTP binding proteins Cdc42 and Rac. This specific family member regulates cell motility and morphology. Mutations in this gene have been associated with macrocephaly, seizures, and speech delay. Overexpression of this gene is also reported in many cancer types, and particularly in breast cancer. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2020]

Product images:

