

Product datasheet for **KN202302**

PAK4 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:	PAK4
Locus ID:	10298
Components:	KN202302G1 , PAK4 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TGGGAAGAGGAAGAAGCGGG KN202302G2 , PAK4 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CCAGCACGAGCAGAAGTTCA KN202302D , 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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AGAAGTAAGT TGGCCGAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
CATCCGTAAG ATGCTTTTCT GTGACTGGTG AGTACTCAAC CAAGTCATTC TGAGAATAGT GTATGCCGGC
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 TACAGGCATC GTGGTGTAC GCTCGTCGTT TGGTATGGCT TCATTCAGCT CCGGTTCCCA ACGATC

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_001014831](#), [NM_001014832](#), [NM_001014833](#), [NM_001014834](#), [NM_001014835](#), [NM_005884](#)

UniProt ID:

[O96013](#)

Synonyms:

p21 protein (Cdc42/Rac)-activated kinase 4; p21(CDKN1A)-activated kinase 4; p21-activated kinase 4; protein kinase related to *S. cerevisiae* STE20, effector for Cdc42Hs

Summary:

PAK proteins, a family of serine/threonine p21-activating kinases, include PAK1, PAK2, PAK3 and PAK4. PAK proteins are critical effectors that link Rho GTPases to cytoskeleton reorganization and nuclear signaling. They serve as targets for the small GTP binding proteins Cdc42 and Rac and have been implicated in a wide range of biological activities. PAK4 interacts specifically with the GTP-bound form of Cdc42Hs and weakly activates the JNK family of MAP kinases. PAK4 is a mediator of filopodia formation and may play a role in the reorganization of the actin cytoskeleton. Multiple alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Product images:

