

# Product datasheet for KN204454LP

#### OriGene Technologies, Inc.

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## TAK1 (MAP3K7) Human 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: TAK1 Locus ID: 6885

**Components: KN204454G1**, TAK1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN204454G2, TAK1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN204454LPD, donor DNA containing left and right homologous arms and Luciferase-Puro

functional cassette.

GE100003, scramble sequence in pCas-Guide vector

RefSeq: <u>NM 003188, NM 145331, NM 145332, NM 145333</u>

UniProt ID: <u>043318</u>

**Synonyms:** MEKK7; TAK1; TGF1a

**Summary:** The protein encoded by this gene is a member of the serine/threonine protein kinase family.

This kinase mediates the signaling transduction induced by TGF beta and morphogenetic protein (BMP), and controls a variety of cell functions including transcription regulation and

apoptosis. In response to IL-1, this protein forms a kinase complex including TRAF6,

MAP3K7P1/TAB1 and MAP3K7P2/TAB2; this complex is required for the activation of nuclear factor kappa B. This kinase can also activate MAPK8/JNK, MAP2K4/MKK4, and thus plays a role in the cell response to environmental stresses. Four alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Jul 2008]



# **Product images:**

### Donor Vector Edited Chromosome



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