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Product datasheet for KN318311LP

Trpv4 Mouse 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:	Trpv4
Locus ID:	63873
Components:	 KN318311G1, Trpv4 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002) KN318311G2, Trpv4 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) KN318311LPD, donor DNA containing left and right homologous arms and Luciferase-Puro functional cassette. GE100003, scramble sequence in pCas-Guide vector
RefSeq:	<u>NM 022017</u>
UniProt ID:	<u>Q9EPK8</u>
Synonyms:	0610033B08Rik; OTRPC4; Trp12; VR-OAC; VRL-2; VROAC



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GRIGENE Trpv4 Mouse Gene Knockout Kit (CRISPR) – KN318311LP

Non-selective calcium permeant cation channel involved in osmotic sensitivity and Summary: mechanosensitivity (PubMed:11094154). Activation by exposure to hypotonicity within the physiological range exhibits an outward rectification (PubMed:12093812, PubMed:14691263, PubMed:16368742, PubMed:16571723). Also activated by heat, low pH, citrate and phorbol esters (PubMed:14691263). Increase of intracellular Ca(2+) potentiates currents. Channel activity seems to be regulated by a calmodulin-dependent mechanism with a negative feedback mechanism (By similarity). Acts as a regulator of intracellular Ca(2+) in synoviocytes (By similarity). Plays an obligatory role as a molecular component in the nonselective cation channel activation induced by 4-alpha-phorbol 12,13-didecanoate and hypotonic stimulation in synoviocytes and also regulates production of IL-8 (By similarity). Together with PKD2, forms mechano- and thermosensitive channels in cilium (PubMed:18695040). Promotes cellcell junction formation in skin keratinocytes and plays an important role in the formation and/or maintenance of functional intercellular barriers (PubMed:20413591). Negatively regulates expression of PPARGC1A, UCP1, oxidative metabolism and respiration in adipocytes (PubMed:23021218). Regulates expression of chemokines and cytokines related to proinflammatory pathway in adipocytes (PubMed:23021218). Together with AQP5, controls regulatory volume decrease in salivary epithelial cells (PubMed:16571723). Required for normal development and maintenance of bone and cartilage (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



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

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