OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MR219221L3V

Otop1 (NM_172709) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Otop1 (NM_172709) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Otop1
Synonyms:	A530025J20Rik; Otp1; tlt
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
Tag:	Myc-DDK
ACCN:	NM_172709
ORF Size:	1800 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR219221).
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	NM_172709.3, NP_766297.2
RefSeq Size:	3171 bp
RefSeq ORF:	1803 bp
Locus ID:	21906
UniProt ID:	Q80VM9
Cytogenetics:	5 20.35 cM

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Gene Summary: Proton-selective channel that specifically transports protons into cells (PubMed:29371428). Proton channel activity is only weakly-sensitive to voltage (PubMed:29371428). Proton-selective channel activity is probably required in cell types that use changes in intracellular pH for cell signaling or to regulate biochemical or developmental processes (PubMed:29371428). In the vestibular system of the inner ear, required for the formation and function of otoconia, which are calcium carbonate crystals that sense gravity and acceleration (PubMed:12651873). Probably acts by maintaining the pH appropriate for formation of otoconia (PubMed:29371428). Regulates purinergic control of intracellular calcium in vestibular supporting cells (PubMed:17606897, PubMed:20554841). May be involved in sour taste perception in sour taste cells by mediating entry of protons within the cytosol (PubMed:29371428). Also involved in energy metabolism, by reducing adipose tissue inflammation and protecting from obesity-induced metabolic dysfunction (PubMed:24379350).[UniProtKB/Swiss-Prot Function]