

## Product datasheet for **RC220617**

### PTCH1 (NM\_001083603) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** PTCH1 (NM\_001083603) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** PTCH1  
**Synonyms:** BCNS; NBCCS; PTC; PTC1; PTCH  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RC220617 representing NM\_001083603  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGAAGTCTTAATAGAAACAGGCTTGTAAATTGTGAGTCCGCGCTGCACTCCGCCGAAAGCCTCCGGCG  
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TGTCGCCGTGCACCCCGCCTGTCCCTGGGCTGGGCGGAACCCCGAGGGGACTCTGCCAGGCTAC  
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC220617 representing NM\_001083603  
 Red=Cloning site Green=Tags(s)

MELLNRNRLVIVSPRCTPPKASGGPARRGFYTFRSFCKDGGGGEEEEENGGEKDDRDKETRSKDGKAT  
 GRKAPLWLRKAFQRLLFKLGCIQKNCQKFLVVGLLIFGAFVGLKAANLETNVEELWVEVGGRVSRLELN  
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 ETGYMDQIIIEYL YPCLIIITPLDCFWEQAKLQSGTAYLLGKPLRWTNFDPLEFLEELKKINYQVDSWEEM  
 LNKAEVGHGYMDRPLNADPDCPATAPNKNSTKPLDMALVLNGGCHGLSRKYMHWQEELIVGGTVKNST  
 GKLVSAHALQTMFQLMTPKQMYEHFKGYEYVSHINWNEDKAAAILEAWQRTYVEVHVQSAVNSTQKVLV  
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 GISFNAATTQVLPFLALGVGVDDVFLLAHAFSETGQNKRIPFEDRTGECLKRTGASVALTISNVTAFFM  
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 DTHDNTRYSPPPYSSHSFAHETQITMQSTVQLRTEYDPHTHVYTTAEPRSEISVQPVTVTQDTLSCQS  
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 RDGLDLTDIVPRETREYDFAAQFKYFSFYNYIYVTKADYPNIQHLLYDLHRFSNVKYYMLEENKQLP  
 KMWLHYFRDWLQGLQDAFSDSWETGKIMPNNYKNGSDDGVLAYKLLVQTGSRDKPIDISQLTKQRLVDAD  
 GIINPSAFYIYLTAWVSNPVAAYAASQANIRPHRPEWVHDKADYMPETRLRIPAAEPIEYQFPFYLNGL  
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 TAGIIVMLALMTVELFGMMGLIGIKLSAVPVVILIASVIGVEFTVHVALAFLTAIGDKNRRAVLALAH  
 MFAPVLDGAVSTLLGVLMLAGSEFDFIVRYFFAVLAILTILGVLNGLVLLPVLLSFFGPYPEVSPANGLN  
 RLPTSPPEPPSVVRFAMPPGHTHSGSDSSDSEYSSQTTVSGLSEELRHYEAQQGAGGPAHQVIVEATEN  
 PVFAHSTVVHPESRHHPPSNRQOPHLDSGSLPPGRQQQPRRPPREGLWPPPYRPRRDAFEISTEGHS  
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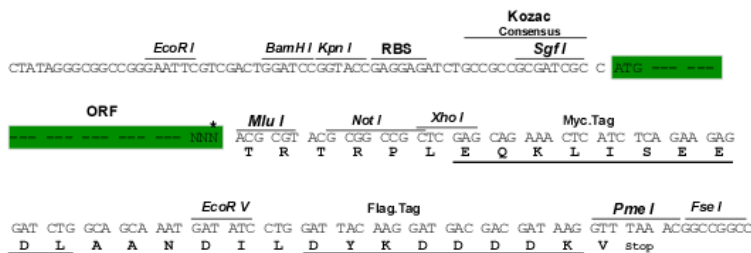
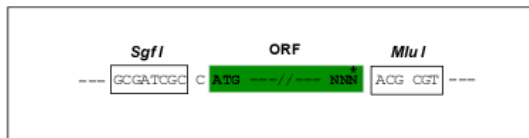
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

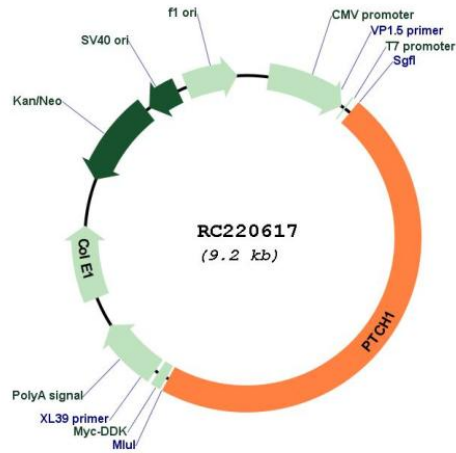
**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM\_001083603

ORF Size: 4338 bp

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.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001083603.3</a>
<b>RefSeq Size:</b>	7911 bp
<b>RefSeq ORF:</b>	4341 bp
<b>Locus ID:</b>	5727
<b>UniProt ID:</b>	<a href="#">Q13635</a>
<b>Cytogenetics:</b>	9q22.32
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
<b>Protein Pathways:</b>	Basal cell carcinoma, Hedgehog signaling pathway, Pathways in cancer
<b>MW:</b>	160.9 kDa
<b>Gene Summary:</b>	<p>This gene encodes a member of the patched family of proteins and a component of the hedgehog signaling pathway. Hedgehog signaling is important in embryonic development and tumorigenesis. The encoded protein is the receptor for the secreted hedgehog ligands, which include sonic hedgehog, indian hedgehog and desert hedgehog. Following binding by one of the hedgehog ligands, the encoded protein is trafficked away from the primary cilium, relieving inhibition of the G-protein-coupled receptor smoothed, which results in activation of downstream signaling. Mutations of this gene have been associated with basal cell nevus syndrome and holoprosencephaly. [provided by RefSeq, Aug 2017]</p>