

## Product datasheet for RC217160

### PTCH1 (NM\_001083604) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PTCH1 (NM_001083604) 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:	>RC217160 representing NM_001083604 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
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**Protein Sequence:** >RC217160 representing NM\_001083604  
 Red=Cloning site Green=Tags(s)

MFNPQLMIQTPKEEGANVLTTEALLQHLDLQASRVHVYMYNRQWKLEHLCYKSGELITETGYMDQIE  
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 RGARSHNPRNPASTAMGSSVPGYCQPIITVTASASVTVAVHPPVPVPGGRNPRGGLCPGYPETDHGLFED  
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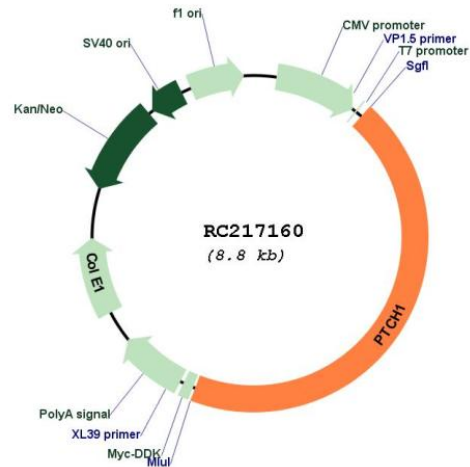
**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



## Plasmid Map:



ACCN: NM\_001083604

ORF Size: 3888 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).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

RefSeq: [NM\\_001083604.2](#)

RefSeq Size: 7675 bp

RefSeq ORF: 3891 bp

Locus ID: 5727

UniProt ID: [Q13635](#)

Cytogenetics: 9q22.32

**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Transmembrane

**Protein Pathways:** Basal cell carcinoma, Hedgehog signaling pathway, Pathways in cancer

**MW:** 144.2 kDa

**Gene Summary:** 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]