

Product datasheet for **RG224642**

PTCH2 (NM_003738) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PTCH2 (NM_003738) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PTCH2
Synonyms:	PTC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG224642 representing NM_003738 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACTCGATCGCCGCCCTCAGAGAGCTGCCCCGAGTTACACACCCAGCTCGAACCGCAGCACCC
AGATCCTAGCTGGGAGCCTGAAGGCTCCACTCTGGCTTCGTGCTTACTCCAGGGCTGCTTCTCTCT
GGGATCGGGATCCAGAGACATTGTGGCAAAGTCTTCTGGGACTGTGGCCTTTGGGGCCCTGGCA
TTAGGTCTCCGCATGGCCATTATTGAGACAACTTGAACAGCTCTGGTAGAAGTGGGCAGCCGGTGA
GCCAGGAGCTGCATTACACCAAGGAGAAGCTGGGGGAGGAGGCTGCATACACCTCTCAGATGCTGATACA
GACCGCACGCCAGGAGGGAGAGAATCCTCACACCCGAAGCACTTGGCCTCCACCTCCAGCAGCCCTC
ACTGCCAGTAAAGTCAAAGTATCACTCTATGGGAAGTCTGGGATTTGAACAAAATCTGCTACAAGTCAG
GAGTTCCTTATTGAAAATGGAATGATTGAGCGGATGATTGAGAAGCTGTTCCGTGCGTGATCCTCAC
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ATCCAGTGGACCAACCTGGATCCAGAGCAGCTGCTGGAGGAGCTGGTCCCTTTGCCTCCCTTGAGGGCT
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CCTCCACTGCCACCTAGTGCCCCAACCATCACAGCAGGCAGGCTCCCAATGTGGCTCACGAGCTGAGT
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GAGACCCCAAGGAGAGCTGCTGAGGGCAGAGGCCCTGCAGAGCACCTTCTTGTGATGAGTCCCGCCA
GCTGTACGAGCATTTCGGGGTACTATCAGACACATGACATTGGCTGGAGTGAGGAGCAGGCCAGCACA
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TGTGGTGGGAGGCTATCTGCTCATGCTGGCCTATGCCTGTGTGACCATGCTGCGGTGGGACTGCGCCAG
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GTGCCCTGCTCGGCATCACCTTCAATGCTGCCACTACCGAGTGTGCCCTTCTTGGCTCTGGGAATCGG
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ATGGGCGAGTGTCTGCAGCGCACGGGCACCAGTGTCTACTCACATCCATCAACAACATGGCCGCTTCC
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CCCCCTGCCTGGTGCTACATCCATCCAGCCCCTGATGAGCCCCCTTGGTCCCCTGCTGCCACTAGCTCT
GGCAACCTCAGTTCAGGGGACCAGGTCCAGCCACTGGG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG224642 representing NM_003738
 Red=Cloning site Green=Tags(s)

MTRSPPLRELPPSYTPPARTAAPQILAGSLKAPLWLRAYFQGLLFSLGCGIQRHCGKVLFLGLLAFGALA
 LGLRMAIIETNLEQLWVEVGSRVSQELHYTKEKLGEEAAYTSQMLIQTARQEGENILTPEALGLHLQAAL
 TASKVQVSLYKSWDLNKICYKSGVPLIENGMIERMIEKLFPCVILTPLDCFWEAGAKLQGG SAYLPGRPD
 IQWTNLDPEQLLEELGPFASLEGFRELLDKAQVQAYVGRPCLHPDDLHCPPSAPNHHSRQAPNVAHEL S
 GGCHGF SHKFMHWQEELLLGGMARDPQGELLRAEALQSTFLLMSRQLYEHFRGDYQTHDIGWSEEQAST
 VLQAWQRRFVQLAQEALPENASQQIHAFSSTTLLDILHAFSEVSAARVVGYYLLMLAYACVTMLRWDCAQ
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 RLDVLCFSSPCSAQVIQILPQELGDGTVPGIAHLTATVQAFTHCEASSQHVVITLPPQAHLVPPPSPD
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 LYGATLVQDGLALTDVPRGTKEHAFLSAQLRYFSLYEVALVTQGGFDYAHSQRALFDLHQRFSSLKAVL
 PPPATQAPRTWLHYRNLWQGIQAAFDQDWASGRITRHSYRNGSEDGALAYKLLIQTGDAQEPLDFSQLT
 TRKLV DREGLIPPELFYMGLTVWVSSDPLGLAASQANFYPPPPEWLHDKYDTTGENLRIPPAQPLEFAQF
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 LLLLNPWTAGLIVLVLAMMTVELFGIMGFLGIKLSAIPVVILVASVGIGVEFTVHVALGFLTQGSRNLR
 AAHALEHTFAPVTDGAISTLLGLLMLAGSHDFIVRYFFAALTVLTLGLLHGLVLLPVLLSILGPPPEV
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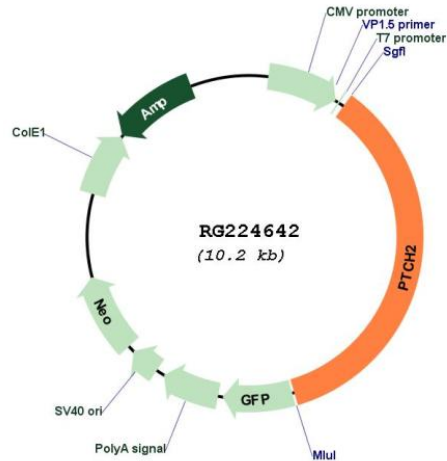
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_003738

ORF Size: 3609 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_003738.5](#)

RefSeq Size: 3624 bp

RefSeq ORF: 3612 bp

Locus ID: 8643

UniProt ID: [Q9Y6C5](#)

Cytogenetics: 1p34.1

Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
Protein Pathways:	Basal cell carcinoma, Hedgehog signaling pathway, Pathways in cancer
Gene Summary:	This gene encodes a transmembrane receptor of the patched gene family. The encoded protein may function as a tumor suppressor in the hedgehog signaling pathway. Alterations in this gene have been associated with nevoid basal cell carcinoma syndrome, basal cell carcinoma, medulloblastoma, and susceptibility to congenital macrostomia. Alternatively spliced transcript variants have been described.[provided by RefSeq, Oct 2009]