

Product datasheet for **RG222143**

P2RX7 (NM_002562) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	P2RX7 (NM_002562) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	P2RX7
Synonyms:	P2X7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG222143 representing NM_002562
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCCGCCTGCTGCAGCTGCAGTGTATTTCCAGTATGAGACGAACAAAGTCACTCGGATCCAGAGCA
 TGAATTATGGCACCATTAAAGTGGTCTTCCACGTGATCATCTTTTCTAGGTTTGCCTTGCCTGGTGAG
 TGACAAGCTGTACCAGCGGAAAGAGCCTGTCATCAGTTCTGTGCACACCAAGGTGAAGGGGATAGCAGAG
 GTGAAAGAGGAGATCGTGGAGAATGGAGTGAAGAAGTTGGTGCACAGTGTCTTTGACACCGCAGACTACA
 CCTTCCCTTTCAGGGGAACTCTTCTCGTGTGACAACTTTCTCAAAACAGAAGGCCAAGAGCAGCG
 GTTGTGTCCCGAGTATCCACCCGAGGACGCTCTGTTCTCTGACCGAGGTTGTAAGGAGGATGGATG
 GACCCGCAGAGCAAGGAATTCAGACCGGAAGGTGTAGTGTATGAAGGGAACCAAGACCTGTGAAG
 TCTCTGCCTGGTCCCATCGAGGCAGTGAAGAGGCCCGCCGCTGCTCTTTGAACAGTGCCGAAAA
 CTTCACTGTGCTCATCAAGAACAATATCGACTTCCCGGCCACAACACTACACCACGAGAAACATCCTGCCA
 GGTTTAAACATCACTTGTACCTCCACAAGACTCAGAATCCACAGTGTCCCATTTTCCGACTAGGAGACA
 TCTTCCGAGAAACAGGCGATAATTTTTCAGATGTGGCAATTCAGGGCGGAATAATGGGCATTGAGATCTA
 CTGGGACTGCAACCTAGACCGTTGGTCCATCACTGCCGTCCCAATACAGTTTCCGTCGCTTGACGAC
 AAGACCACCAACGTGTCTTGTACCCTGGCTACAACCTCAGATACGCCAAGTACTACAAGGAAAACAATG
 TTGAGAAACGGACTCTGATAAAAGTCTTCGGGATCCGTTTTGACATCCTGGTTTTTGGCACCGGAGGAAA
 ATTTGACATTATCCAGCTGGTTGTACATCGGCTCAACCCTCTCCTACTTCGGTCTGGCCGCTGTGTTCT
 ATCGACTTCTCATCGACTTACTCCAGTAACTGCTGTCGCTCCCATATTTATCCCTGGTGAAGTGTCT
 GTCAGCCCTGTGTGGTCAACGAATACTACTACAGGAAGAAGTGGGAGTCCATTGTGGAGCCAAAGCCGAC
 ATTAAGTATGTGTCCTTTGTGGATGAATCCACATTAGGATGGTGAACCAAGCAGCTACTAGGGAGAAGT
 CTGCAAGATGTCAAGGGCCAAGAAGTCCCAAGACCTGCGATGGACTTACAGATTTGTCAGGCTGCCCC
 TGGCCCTCCATGACACACCCCGATTCTGGACAACCAGAGGAGATACAGCTGCTTAGAAAGGAGGCGAC
 TCCTAGATCCAGGGATAGCCCCGCTGGTGGCAGTGTGGAAGCTGCCTCCCATCTCAACTCCCTGAGAGC
 CACAGGTGCTGGAGGCGCTGTGCTGCCGAAAAAGCCGGGGCCTGCATCACCACCTCAGAGCTGTTCA
 GGAAGCTGGTCTGTCCAGACACGCTCTGCAGTTCCTCCTGCTCTACCAGGAGCCCTTGTGGCGCTGGA
 TGTGGATTCCACCAACAGCCGGCTGCGGCACTGTGCTACAGGTGCTACGCCACCTGGCGCTTCGGCTCC
 CAGGACATGGCTGACTTTGCCATCCTGCCAGCTGCTGCCGCTGGAGGATCCGGAAGAGTTCCGAAGA
 GTGAAGGCGAGTACAGTGCTTCAAGAGTCCTTAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG222143 representing NM_002562
 Red=Cloning site Green=Tags(s)

MPACCSQSDVFQYETNKVTRIQSMNYGTIKWFFHVIIFSYVCFALVSDKLYQRKEPVISSVHTKVKGIAE
 VKEEIVENGVKKLVHVSFDTADYTFPLQNSFFVMTNFKTEGQEQRLCPEYPTRRRLCSSDRGCKKGM
 DPQSKGIQTGRVYVEGNQKTCESAWCPVEAVEEAPRPALLNSAENFTVLKNNIDFPGHNYTTRNILP
 GLNITCTFHKTQNPQCPIFRLGDFRETGDNFSDVAIQGGIMGIEIYWDCNLDLRFHHCPRKYSFRRLDD
 KTTNVSLYPGYNFRYAKYYKENVKRTLIKVFIRFDILVFGTGGKFDIIQLVVYIGSTLSYFGLAAVF
 IDFLIDTYSSNCCRSIYPWCKCCQPCVVNEYYYRKKCESIVEPKPTLKYVSFVDESHIRMVNQQLLGRS
 LQDVKGQEVPRPAMDFTDL SRLPLALHDTPIPGQPEEIQLLRKEATPRSRDSPVWCQCGSCLPSQLPES
 HRCLEALCCRKPGACITTSLEFRKLVLSRHLVQLLLYQEPLALDVDSTNSRLRHCAYRCYATWRFGS
 QDMADFAILPSCCRWRIRKEFPKSEGQYSGFKSPY

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_002562

ORF Size: 1785 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_002562.4](#), [NP_002553.2](#)

RefSeq Size: 3155 bp

RefSeq ORF: 1788 bp

Locus ID: 5027

UniProt ID: [Q99572](#)

Cytogenetics: 12q24.31

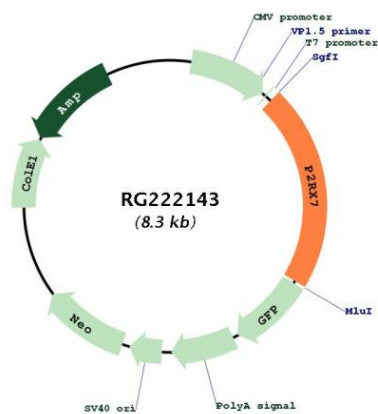
Domains: P2X_receptor

Protein Families: Druggable Genome, Ion Channels: ATP Receptors, Transmembrane

Protein Pathways: Calcium signaling pathway, Neuroactive ligand-receptor interaction

Gene Summary: The product of this gene belongs to the family of purinoceptors for ATP. This receptor functions as a ligand-gated ion channel and is responsible for ATP-dependent lysis of macrophages through the formation of membrane pores permeable to large molecules. Activation of this nuclear receptor by ATP in the cytoplasm may be a mechanism by which cellular activity can be coupled to changes in gene expression. Multiple alternatively spliced variants have been identified, most of which fit nonsense-mediated decay (NMD) criteria. [provided by RefSeq, Jul 2010]

Product images:



Circular map for RG222143