

## Product datasheet for **RC216622**

### **BPNT1 (NM\_006085) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** BPNT1 (NM\_006085) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** BPNT1  
**Synonyms:** HEL20; PIP  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC216622 representing NM\_006085  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTTCCAGTAACACTGTGTTGATGCGGTTGGTAGCCTCCGCATATTCTATTGCTCAAAGGCAGGAA  
TGATAGTCAGACGTGTTATTGCTGAAGGAGACCTGGGTATTGTGGAGAAGACCTGTGCAACAGACCTGCA  
GACCAAAGCTGACCGATTGGCACAGATGAGCATATGTTCTTCATTGGCCCGAAATCCCCAACTCACA  
ATTATAGGGGAAGAGGATCTGCCTTCTGAGGAAGTGGATCAAGAGCTGATTGAAGACAGTCAGTGGGAAG  
AAATACTGAAGCAACCATGCCATCGCAGTACAGTGTCTATAAAGAAGAAGATCTCGTGGTCTGGGTTGA  
TCCTCTGGATGGAACCAAGGAATATACCGAAGGTCTTCTTGACAATGTAACAGTTCTTATTGGAATTGCT  
TATGAAGGAAAAGCCATAGCAGGAGTTATTAACAGCCATATTACAACATGAGGCAGGACCAGATGCTG  
TGTTGGGGAGGACAATCTGGGGAGTTTTAGGTTTAGGCGCCTTTGGGTTTCAGCTGAAAGAAGTCCCTGC  
TGGGAAACACATTATCACAACACTCGATCCCATAGCAACAAGTTGGTTACTGACTGTGTTGCTGCATG  
AACCCCGATGCTGTGCTGCGAGTAGGAGGAGCAGGAAATAAGATTATTCAGCTGATTGAAGGCAAAGCCT  
CTGCTTATGTATTTGCAAGTCTGGTTGTAAGAAGTGGGATACTGTGCTCCAGAAGTTATTTTACATGC  
TGTGGGAGGCAAGTTAACCGATATCCATGGGAATGTTCTTCAGTACCACAAGGATGTGAAGCATATGAAC  
TCTGCAGGAGTCTGGCCACACTGAGGAATTATGACTACTATGCAAGCCGAGTCCAGAATCTATTA  
ATGCACCTGTTCTCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC216622 representing NM\_006085  
Red=Cloning site Green=Tags(s)

MASSNTVLMRLVASAYSIAQKAGMIVRRVIAEGDLGIVEKTCATDLQTKADRLAQMSSICSSLARKFPKLT  
 IIGEDLPSEEVDQELIEDSQWEEILKQPCPSQYSAIKEEDLVVWVDPLDGTKEYTEGLLDNVTVLIGIA  
 YEGKAIAGVINQPYNYEAGPDAVLGRTIWGVLGLGAFGFQLKEVPAGKHIITTRSHSNKLVTDCVAAM  
 NPDAVLRVGGAGNKIIQLIEGKASAYVFASPGCKKWDCAPEVILHAVGGKLTDIHGNVLQYHKDVKHMN  
 SAGVLATLRNYDYASRVPESIKNALVP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6485\\_a09.zip](https://cdn.origene.com/chromatograms/mk6485_a09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_006085

**ORF Size:** 924 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\\_006085.6](#)

**RefSeq Size:** 2461 bp

**RefSeq ORF:** 927 bp

**Locus ID:** 10380

**UniProt ID:** [O95861](#)

**Cytogenetics:** 1q41

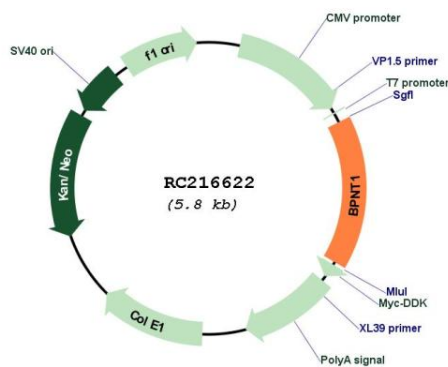
**Domains:** inositol\_P

**Protein Pathways:** Sulfur metabolism

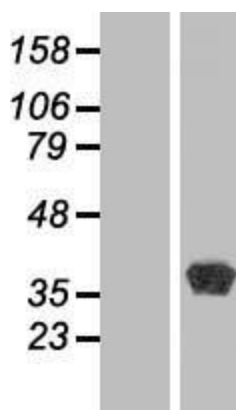
**MW:** 33.2 kDa

**Gene Summary:** BPNT1, also called bisphosphate 3-prime-nucleotidase, or BPntase, is a member of a magnesium-dependent phosphomonoesterase family. Lithium, a major drug used to treat manic depression, acts as an uncompetitive inhibitor of BPntase. The predicted human protein is 92% identical to mouse BPntase. BPntase's physiologic role in nucleotide metabolism may be regulated by inositol signaling pathways. The inhibition of human BPntase may account for lithium-induced nephrotoxicity. [provided by RefSeq, Jul 2008]

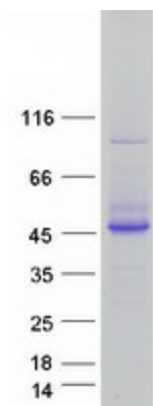
### Product images:



Circular map for RC216622



Western blot validation of overexpression lysate (Cat# [LY416871]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216622 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BPNT1 protein (Cat# [TP316622]). The protein was produced from HEK293T cells transfected with BPNT1 cDNA clone (Cat# RC216622) using MegaTran 2.0 (Cat# [TT210002]).