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# Product datasheet for RG207013

## BUB1 (NM_004336) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | BUB1 (NM_004336) Human Tagged ORF Clone |
| **Tag:** | TurboGFP |
| **Symbol:** | BUB1 |
| **Synonyms:** | BUB1A; BUB1L; hBUB1 |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-AC-GFP (PS100010) |
| **E. coli Selection:** | Ampicillin (100 ug/mL) |

**ORF Nucleotide Sequence:**

>RG207013 representing NM_004336
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGACACCCCGGAAAATGTCCTTCAGATGCTTGAAGCCCACATGCAGAGCTACAAGGGCAATGACCCTC
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CAATCTCTAGATCAAAATGAAGATGCATTTGAAGCCCAGTTTCAAAAAAATGTAAGGTCATCTGGGGCTT
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AGGCAAAAGCTGAAGAAAGTATTTCAACAACACTATACTAACAAGATTAGGGCCCTACGTAATAGGCTAA
TTGTACTGCTCTTAGAATGTAAGCGTTCACGAAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG207013 representing NM_004336
Red=Cloning site Green=Tags(s)

MDTPENVLQMLEAHMQSYKGNDPLGEWERYIQWVEENFPENKEYLITLLEHLMKEFLDKKKYHNDPRFIS
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LPSKPKEEVPHAEEFLDDSTVWGIRCNKTLAPSPKSPGDFTSAAQLASTPFHKLPVESVHILEDKENVVA
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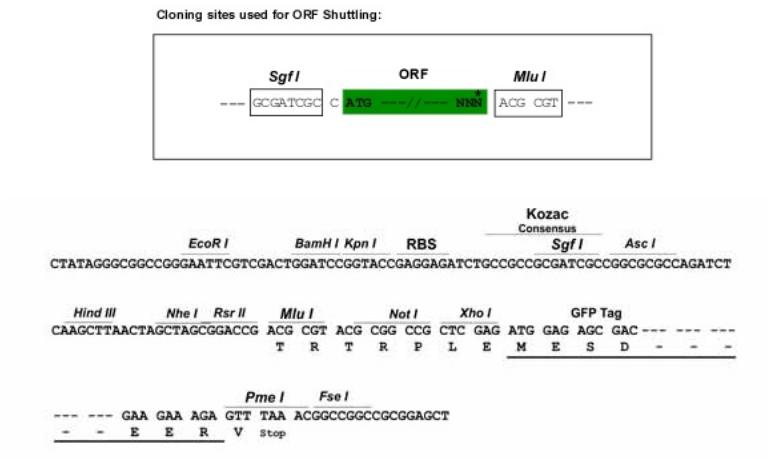
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**




| | |
|---|---|
| **ACCN:** | NM_004336 |
| **ORF Size:** | 3255 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.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_004336.5 |
| **RefSeq Size:** | 3486 bp |
| **RefSeq ORF:** | 3258 bp |
| **Locus ID:** | 699 |
| **UniProt ID:** | O43683 |

**Cytogenetics:** 2q13

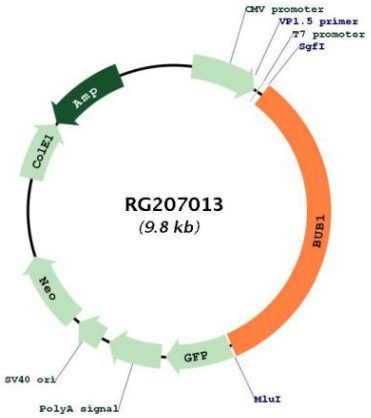
**Domains:** pkinase, S_TKc

**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** Cell cycle, Oocyte meiosis, Progesterone-mediated oocyte maturation

**Gene Summary:** This gene encodes a serine/threonine-protein kinase that play a central role in mitosis. The encoded protein functions in part by phosphorylating members of the mitotic checkpoint complex and activating the spindle checkpoint. This protein also plays a role in inhibiting the activation of the anaphase promoting complex/cyclosome. This protein may also function in the DNA damage response. Mutations in this gene have been associated with aneuploidy and several forms of cancer. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Jul 2013]

## Product images:




Circular map for RG207013