

## Product datasheet for **RG234042**

### STEAP2 (NM\_001244946) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	STEAP2 (NM_001244946) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	STEAP2
Synonyms:	IPCA1; PCANAP1; PUMPCn; STAMP1; STMP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG234042 representing NM_001244946 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAATCAATCTCTATGATGGGAAGCCCTAAGAGCCTTAGTGAACTTTTTACCTAATGGCATAAATG  
GTATCAAAGATGCAAGGAAGGTCACTGTAGGTGTATTGGAAGTGGAGATTTGCCAAATCCTTGACCAT  
TCGACTTATTAGATGCGGCTATCATGTGGTCATAGGAAGTAGAAATCCTAAGTTTGCTTCTGAATTTTT  
CCTCATGTGGTAGATGTCACCTCATCATGAAGATGCTCTCACAAAAACAAATATAATATTTGTTGCTATAC  
ACAGAGAACATTATACCTCCCTGTGGGACCTGAGACATCTGCTTGTGGGTAAAATCCTGATTGATGTGAG  
CAATAACATGAGGATAAACCAGTACCCAGAATCCAATGCTGAATATTTGGCTCATTATCCAGATTCT  
TTGATTGTCAAAGGATTTAATGTTGTCTCAGCTTGGGCACTTCAGTTAGGACCTAAGGATGCCAGCCGGC  
AGGTTTATATATGCAGCAACAATATTCAAGCGCGACAACAGGTTATTGAACCTGGCCCGCAGTTGAATTT  
CATTCCCATTGACTTGGGATCCTTATCATCAGCCAGAGAGATTGAAAATTTACCCCTACGACTCTTACT  
CTCTGGAGAGGGCCAGTGGTGGTAGCTATAAGCTTGGCCACATTTTTTCTTTTATTCTTTGTCAGAG  
ATGTGATTCATCCATATGCTAGAAACCAACAGAGTGACTTTTACAAAATTCCTATAGAGATTGTGAATAA  
AACCTTACCTATAGTTGCCATTACTTTGCTCTCCCTAGTATACCTCGCAGGTCTTCTGGCAGCTGCTTAT  
CAACTTTATTACGGCACCAAGTATAGGAGATTTCCACCTTGGTTGAAACCTGGTTACAGGTAGAAAAAC  
AGCTTGGATTACTAAGTTTTTCTCGCTATGGTCCATGTTGCCTACAGCCTCTGCTTACCGATGAGAAG  
GTCAGAGAGATATTTGTTCTCAACATGGCTTATCAGCAGGTTTATGCAAATATTGAAAACCTTGGAAAT  
GAGGAAGAAGTTTGGAGAATTGAAATGTATATCTCCTTTGGCATAATGAGCCTTGGCTTACTTTCCCTCC  
TGGCAGTCACTTCTATCCCTTCAGTGAATGCTTTAACTGGAGAGAATTCAGTTTTATTTCAGATCTT  
TTGCAGCTTTCAGATACCCAGACTGAGCTGGAATTTGTCTTCTTATTGACTCTACTTCTT

**ACGGT**ACGGCGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG234042 representing NM\_001244946  
 Red=Cloning site Green=Tags(s)

MESISMMGSPKSLSETFLPNGINGIKDARKVTVGVIGSGDFAKSLTIRLCRGYHVIVIGSRNPKFASEFF  
 PHVVDVTHHEDALTKTNIIFVAIHREHYTSLWDLRHLVGKILIDVSNMNRINQYPESNAEYLASLFPDS  
 LIVKGFNVVSAWALQLGPKDASRQVYICSNNIQARQQVIELARQLNFIPIDLGSLSSAREIENLPLRLFT  
 LWRGPVVVAISLATFFFLYSFVRDVIHPYARNQQSDFYKIPIEIVNKTLPIVAITLLSLVYLAGLLAAAY  
 QLYYGTKYRRFPWLETWLQCRKQLGLLSFFFAMVHVAYSCLCPMRRSERYLFLNMAYQQVHANIENSWN  
 EEEVWRIEMYISFGIMSLGLLSLLAVTSPSVSNALNWREFSFIQIFCSFADTQTELELEFVFLLTLL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001244946

**ORF Size:** 1257 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\\_001244946.2](#)

**RefSeq Size:** 2142 bp

**RefSeq ORF:** 1260 bp

**Locus ID:** 261729

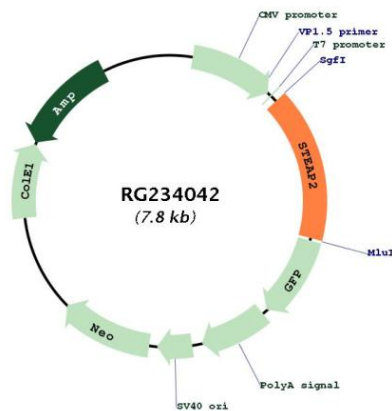
**UniProt ID:** [Q8NFT2](#)

**Cytogenetics:** 7q21.13

**Protein Families:** Transmembrane

**Gene Summary:** This gene is a member of the STEAP family and encodes a multi-pass membrane protein that localizes to the Golgi complex, the plasma membrane, and the vesicular tubular structures in the cytosol. A highly similar protein in mouse has both ferrireductase and cupric reductase activity, and stimulates the cellular uptake of both iron and copper in vitro. Increased transcriptional expression of the human gene is associated with prostate cancer progression. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RG234042