Product datasheet for **RC214442L4**

**HIST1H2BF (NM_003522) Human Tagged ORF Clone**

**Product data:**

- **Product Type:** Expression Plasmids
- **Product Name:** HIST1H2BF (NM_003522) Human Tagged ORF Clone
- **Tag:** mGFP
- **Symbol:** HIST1H2BF
- **Synonyms:** H2B/g; H2BFG
- **Vector:** pLenti-C-mGFP-P2A-Puro (PS100093)
- **E. coli Selection:** Chloramphenicol (34 ug/mL)
- **Cell Selection:** Puromycin
- **ORF Nucleotide Sequence:** The ORF insert of this clone is exactly the same as (RC214442).
- **Restriction Sites:** SgfI-MluI
- **Cloning Scheme:**

```
SgfI
--- CGG ATC GGC

ORF
-ATG---/---NNN

MluI
--- ACG GCT
```

**Cloning sites used for ORF Shuttling:**

```
EcoRI  BamHI  RBS  Kozak
CTAGGGCCCAGCGATGATCAGGATGAACTGATGATGGAGATCGATAGCTGACG

MluI  NotI  XhoI  mGFP Tag
--- ACG CTT AGA GTT TGG GTA GGA AGC

--- GGA CTC AGA GTT TGG GTA GGA AGC
```

* The last codon before the stop codon of the ORF.

**ACCN:** NM_003522

**ORF Size:** 378 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.

RefSeq: NM_003522.3, NP_003513.1
RefSeq Size: 430 bp
RefSeq ORF: 381 bp
Locus ID: 8343
Cytogenetics: 6p22.2
Domains: H2B, histone
Protein Pathways: Systemic lupus erythematosus
MW: 13.9 kDa

Gene Summary: Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. Two molecules of each of the four core histones (H2A, H2B, H3, and H4) form an octamer, around which approximately 146 bp of DNA is wrapped in repeating units, called nucleosomes. The linker histone, H1, interacts with linker DNA between nucleosomes and functions in the compaction of chromatin into higher order structures. This gene is intronless and encodes a replication-dependent histone that is a member of the histone H2B family. The protein has antibacterial and antifungal antimicrobial activity. Transcripts from this gene lack polyA tails but instead contain a palindromic termination element. This gene is found in the large histone gene cluster on chromosome 6. [provided by RefSeq, Aug 2015]