

## Product datasheet for **RG207685**

### NGAL (LCN2) (NM\_005564) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** NGAL (LCN2) (NM\_005564) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** NGAL  
**Synonyms:** 24p3; MSFI; NGAL; p25  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG207685 representing NM\_005564  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCCTAGGTCTCCTGTGGCTGGCCTAGCCCTGTTGGGGCTCTGCATGCCAGGCCAGGACTCCA  
CCTCAGACCTGATCCCAGCCCCACCTCTGAGCAAGGTCCCTCTGCAGCAGAACTCCAGGACAACCAATT  
CCAGGGGAAGTGGTATGTGGTAGGCCTGGCAGGGAATGCAATTCTCAGAGAAGACAAGACCCGCAAAG  
ATGTATGCCACCATCTATGAGCTGAAAGAAGACAAGAGCTACAATGTCACCTCCGTCCTGTTTAGGAAA  
AGAAGTGTGACTACTGGATCAGGACTTTTGTCCAGGTTGCCAGCCGGCGAGTTCACGCTGGGCAACAT  
TAAGAGTTACCCTGGATTAACGAGTTACCTCGTCCGAGTGGTGAACCACTACAACCAGCATGCTATG  
GTGTTCTTCAAGAAAGTTTCTCAAACAGGGAGTACTTCAAGATCACCTCTACGGGAGAACCAAGGAGC  
TGACTTCGGAATAAAGGAGAACTTCATCCGCTTCTCAAATCTCTGGGCTCCCTGAAAACCACATCGT  
CTTCCCTGTCCAATCGACCAAGTGTATCGACGGC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG207685 representing NM\_005564  
Red=Cloning site Green=Tags(s)  
MPLGLLWGLALLGALHAQAQDSTSDLIPAPPLSKVPLQQNFQDNQFQGWYVVGLAGNAILREDKDPQK  
MYATIYELKEDKSYNVTSVLFRKKKCDYWIRTFVPGCQPGEFTLGNIKSYPLGTSYLVRVVSTNYNQHAM  
VFFKKVSNREYFKITLYGRTELKELTSELKENFIRFSKSLGLPENHIVFPVPIDQCIDG

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** SgfI-MluI



**Cloning Scheme:**


**ACCN:** NM\_005564

**ORF Size:** 594 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_005564.5](#)

RefSeq Size: 845 bp

RefSeq ORF: 597 bp

Locus ID: 3934

UniProt ID: [P80188](#)

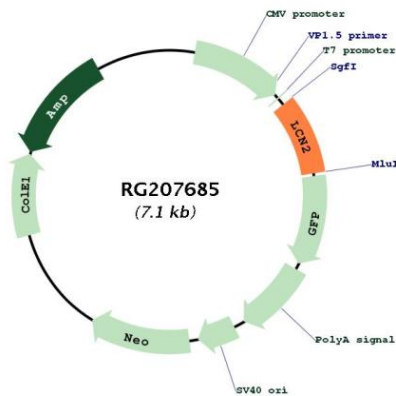
Cytogenetics: 9q34.11

Domains: lipocalin

Protein Families: Secreted Protein

**Gene Summary:** This gene encodes a protein that belongs to the lipocalin family. Members of this family transport small hydrophobic molecules such as lipids, steroid hormones and retinoids. The protein encoded by this gene is a neutrophil gelatinase-associated lipocalin and plays a role in innate immunity by limiting bacterial growth as a result of sequestering iron-containing siderophores. The presence of this protein in blood and urine is an early biomarker of acute kidney injury. This protein is thought to be involved in multiple cellular processes, including maintenance of skin homeostasis, and suppression of invasiveness and metastasis. Mice lacking this gene are more susceptible to bacterial infection than wild type mice. [provided by RefSeq, Sep 2015]

**Product images:**



Circular map for RG207685