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Product datasheet for RG224398

ErbB 3 (ERBB3) (NM_001005915) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ErbB 3 (ERBB3) (NM_001005915) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ErbB 3
Synonyms:	c-erbB-3; c-erbB3; ErbB-3; erbB3-S; FERLK; HER3; LCCS2; MDA-BF-1; p45-sErbB3; p85-sErbB3; p180-ErbB3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

```
>RG224398 representing NM_001005915
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGGGCGAACGACGCTCTGCAGGTGCTGGGCTTGCTTTTCAGCCTGGCCCGGGGCTCCGAGGTGGGCA
ACTCTCAGGCAGTGTGTCCTGGGACTCTGAATGGCCTGAGTGTGACCGGCGATGCTGAGAACCAATACCA
GACACTGTACAAGCTCTACGAGAGGTGTGAGGTGGTGATGGGGAACCTTGAGATTGTGCTCACGGGACAC
AATGCCGACCTCTCCTTCCTGCAGTGGATTCGAGAAGTGACAGGCTATGTCCTCGTGGCCATGAATGAAT
TCTCTACTCTACCATTGCCCAACCTCCGCGTGGTGCGAGGGACCCAGGTCTACGATGGGAAGTTTGCCAT
CTTCGTCATGTTGAACTATAACACCAACTCCAGCCACGCTCTGCGCCAGCTCCGCTTGACTCAGCTCACC
GGTCAGTTCCCGATGGTTCCTTCTGGCCTCACCCCTCAGCCAGCCCAAGACTGGTACCTCCTTGATGATG
ACCCAAGACTGCTCACTCTAAGTGCCTCTTCCAAGGTGCCTGTCACCTTGGCCGCTGTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag -  GTTTAA
```

Protein Sequence:

```
>RG224398 representing NM_001005915
Red=Cloning site Green=Tags(s)

MRANDALQVLGLLFSLARGSEVGNSQAVCPGTLNGLSVTGDAENQYQTLYKLYERCEVVMGNLEIVLTGH
NADLSFLQWIREVTGYVLVAMNEFSTLPLPNLRVVRGTQVYDGKFAIFVMLNYNTNSSHALRQLRLTQLT
GQFPMVPSGLTPQPAQDWYLLDDDPRLLTLSASSKVPVTLAAV

TRTRPLE - GFP Tag -  V
```

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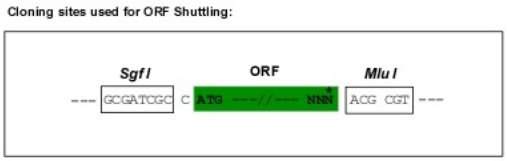
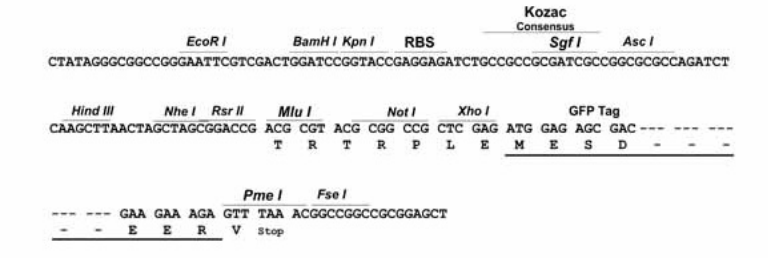
Restriction Sites: SgfI-MluI

Cloning Scheme:





ACCN: NM_001005915

ORF Size: 549 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_001005915.1, NP_001005915.1

RefSeq Size: 1050 bp

RefSeq ORF: 552 bp

Locus ID: 2065

UniProt ID: P21860

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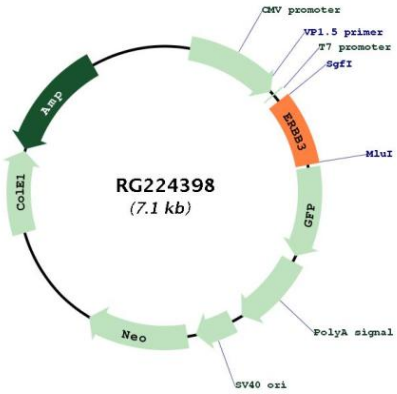
Cytogenetics: 12q13.2

Protein Families: Adult stem cells, Druggable Genome, Protein Kinase, Secreted Protein, Stem cell - Pluripotency, Transmembrane

Protein Pathways: Calcium signaling pathway, Endocytosis, ErbB signaling pathway

Gene Summary: This gene encodes a member of the epidermal growth factor receptor (EGFR) family of receptor tyrosine kinases. This membrane-bound protein has a neuregulin binding domain but not an active kinase domain. It therefore can bind this ligand but not convey the signal into the cell through protein phosphorylation. However, it does form heterodimers with other EGF receptor family members which do have kinase activity. Heterodimerization leads to the activation of pathways which lead to cell proliferation or differentiation. Amplification of this gene and/or overexpression of its protein have been reported in numerous cancers, including prostate, bladder, and breast tumors. Alternate transcriptional splice variants encoding different isoforms have been characterized. One isoform lacks the intermembrane region and is secreted outside the cell. This form acts to modulate the activity of the membrane-bound form. Additional splice variants have also been reported, but they have not been thoroughly characterized. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG224398

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