

## Product datasheet for RC221703

### DAND5 (NM\_152654) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DAND5 (NM_152654) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DAND5
Synonyms:	CER2; CERL2; CKTSF1B3; COCO; CRL2; DANTE; GREM3; SP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC221703 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGCTCCTTGGCCAGCTATCCACTCTTCTGTGCCTGCTTAGCGGGGCCCTGCCTACAGGCTCAGGGAGGC  
 CTGAACCCAGTCTCCTCGACCTCAGTCTGGGCTGCAGCAATCAGACCTGGGCTCTGGGCCAGGGGC  
 CCTGCCCCACTGGTGCCAGCTTCTGCCCTTGGGAGCTGGAAGGCCTTCTGGGCCTGCAGAAAGCCAGG  
 CAGCTGGGGATGGGCAGGCTGCAGCGTGGGCAAGACGAGGTGGCTGCTGTGACTCTGCCGCTGAACCTC  
 AGGAAGTGATCCAGGGGATGTGTAAGGCTGTGCCCTTCGTTAGGTGTTCTCCCGCCCGGCTGCTCAGC  
 CATACGCCTCCGAAATCATCTGTGCTTTGGTCATTGCTCCTCTCTCTACATCCCTGGCTCGGACCCACC  
 CCACTAGTCCTGTGCAACAGCTGTATGCCTGCTCGCAAGCGTTGGGCACCCGTTGGTCTGTGGTGTCTCA  
 CTGGCAGCTCAGCCTCCCGTCGACGGGTGAAGATATCCACCATGCTGATCGAGGGGTGCTACTGCAGCCC  
 AAAAGCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC221703 protein sequence Red=Cloning site Green=Tags(s)
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MLLGQLSTLLCLLSGALPTGSGRPEPQSPRPQSWAAANQTWALGPGALPPLVPASALGSWKAFLGLQKAR  
 QLGMRQLQRQDEVAATLPLNPQEVIIQGMCKAVPFVQVFSRPGCSAIRLRNHLFCGHCSLYIPGSDPT  
 PLVLCNSCMPARKRWAPVVLWCLTGSSASRRRVKISTMLIEGCHCSPKA

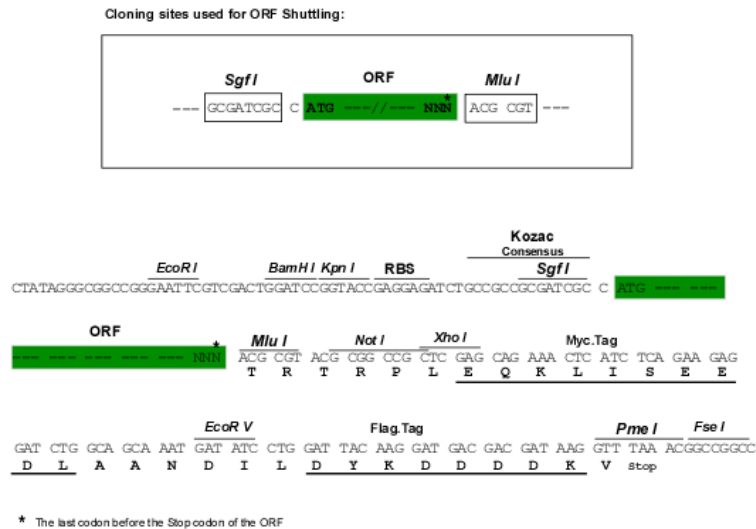
TRTRPLEQKLISEEDLAANDILDYKDDDDKV


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**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6460\\_a09.zip](https://cdn.origene.com/chromatograms/mk6460_a09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_152654

**ORF Size:** 567 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

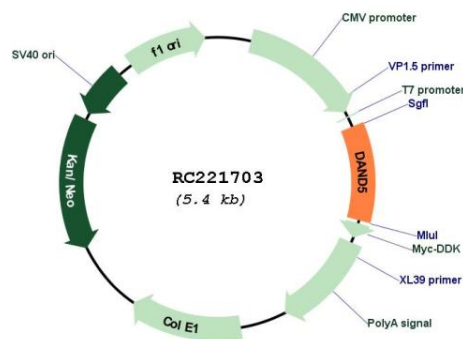
**RefSeq:** [NM\\_152654.2](#), [NP\\_689867.1](#)

**RefSeq Size:** 1732 bp

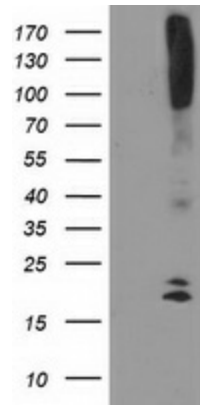
RefSeq ORF: 570 bp  
 Locus ID: 199699  
 UniProt ID: [Q8N907](#)  
 Cytogenetics: 19p13.13  
 MW: 20.2 kDa

**Gene Summary:** This gene encodes a member of the BMP (bone morphogenic protein) antagonist family. Like BMPs, BMP antagonists contain cystine knots and typically form homo- and heterodimers. The CAN (cerberus and dan) subfamily of BMP antagonists, to which this gene belongs, is characterized by a C-terminal cystine knot with an eight-membered ring. The antagonistic effect of the secreted protein encoded by this gene is likely due to its direct binding to BMP proteins. As an antagonist of BMP, this gene may play a role in regulating organogenesis, body patterning, and tissue differentiation. In mouse, this protein has been shown to bind Nodal and to inhibit the Nodal signaling pathway which patterns left/right body asymmetry. [provided by RefSeq, Jul 2008]

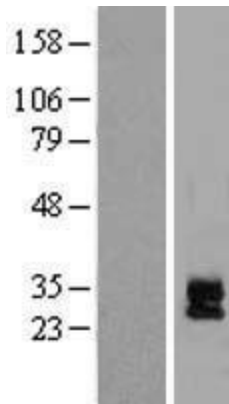
## Product images:



Circular map for RC221703



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DAND5 (Cat# RC221703, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-DAND5 (Cat# [TA503555]). Positive lysates [LY407380] (100ug) and [LC407380] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY407380]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221703 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).