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Product datasheet for RC204005

GADD45A (NM_001924) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GADD45A (NM_001924) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GADD45A
Synonyms:	DDIT1; GADD45
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC204005 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACTTTGGAGGAATTCTCGGCTGGAGAGCAGAAGACCGAAAGGATGGATAAGGTGGGGGATGCCCTGG
AGGAAGTGCTCAGCAAAGCCCTGAGTCAGCGCACGATCACTGTCGGGGTGTACGAAGCGGCCAAGCTGCT
CAACGTCGACCCCGATAACGTGGTGTTGTGCCTGCTGGCGGCGGACGAGGACGACGACAGAGATGTGGCT
CTGCAGATCCACTTCACCCTGATCCAGGCGTTTTGCTGCGAGAACGACATCAACATCCTGCGCGTCAGCA
ACCCGGGCCGGCTGGCGGAGCTCCTGCTCTTGGAGACCGACGCTGGCCCCGCGGCGAGCGAGGGCGCCGA
GCAGCCCCCGGACCTGCACTGCGTGCTGGTGACGAATCCACATTCATCTCAATGGAAGGATCCTGCCTTA
AGTCAACTTATTTGTTTTTGCCGGGAAAGTCGCTACATGGATCAATGGGTTCCAGTGATTAATCTCCCTG
AACGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC204005 protein sequence
Red=Cloning site Green=Tags(s)

MTLEEFSAGEQKTERMDKVGDALEEVLSKALSQRTITVGVYEAAKLLNVDPDNVVLCLLAADEDDDRDVA
LQIHFTLIQAFCCENDINILRVSNPGRLAELLLLETDAGPAASEGAEQPPDLHCVLVTNPHSSQWKDPAL
SQLICFCRESRYMDQWVPVINLPER

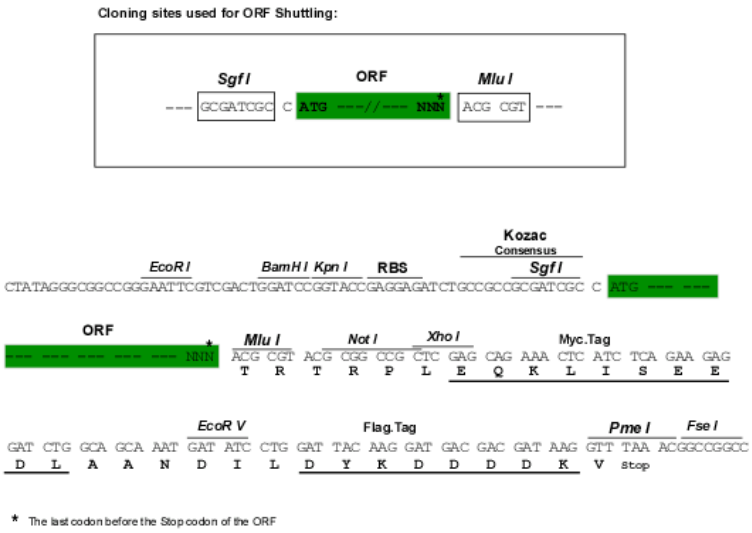
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6058_f03.zip

View online »

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_001924

ORF Size: 495 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 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.

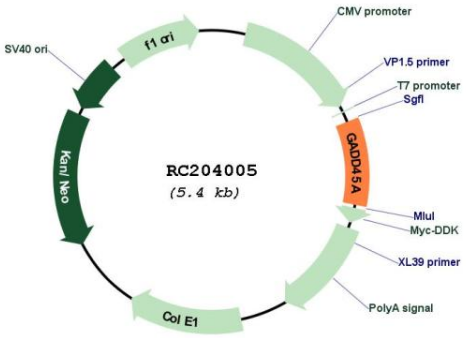
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

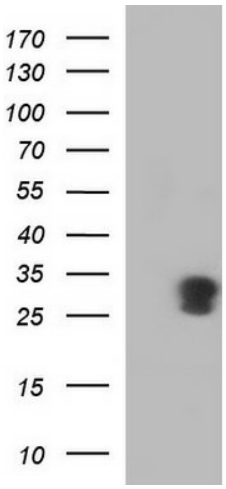
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001924.4
RefSeq Size:	1398 bp
RefSeq ORF:	498 bp
Locus ID:	1647
UniProt ID:	P24522
Cytogenetics:	1p31.3
Domains:	Ribosomal_L7Ae
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	Cell cycle, MAPK signaling pathway, p53 signaling pathway
MW:	18.3 kDa
Gene Summary:	This gene is a member of a group of genes whose transcript levels are increased following stressful growth arrest conditions and treatment with DNA-damaging agents. The protein encoded by this gene responds to environmental stresses by mediating activation of the p38/JNK pathway via MTK1/MEKK4 kinase. The DNA damage-induced transcription of this gene is mediated by both p53-dependent and -independent mechanisms. Alternatively spliced transcript variants encoding distinct isoforms have been found for this gene.[provided by RefSeq, Dec 2010]

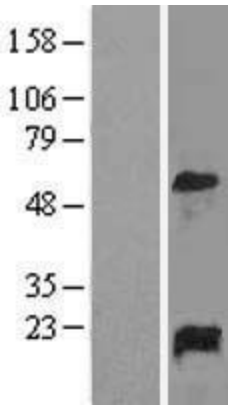
Product images:



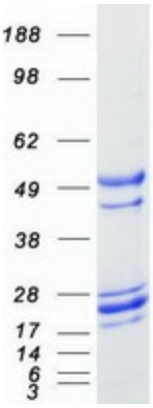
Circular map for RC204005



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GADD45A (Cat# RC204005, 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-GADD45A (Cat# [TA507370]). Positive lysates [LY419659] (100ug) and [LC419659] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419659]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204005 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GADD45A protein (Cat# [TP304005]). The protein was produced from HEK293T cells transfected with GADD45A cDNA clone (Cat# RC204005) using MegaTran 2.0 (Cat# [TT210002]).