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Product datasheet for RC201013

GSTM3 (NM_000849) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GSTM3 (NM_000849) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GSTM3
Synonyms:	GST5; GSTB; GSTM3-3; GTM3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC201013 representing NM_000849
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCGTGCGAGTCGTCTATGGTTCTCGGGTACTGGGATATTCGTGGGCTGGCGCACGCCATCCGCCTGC
TCCTGGAGTTCACGGATACCTCTTATGAGGAGAAACGGTACACGTGCGGGGAAGCTCCTGACTATGATCG
AAGCCAATGGCTGGATGTGAAATTCAAGCTAGACCTGGACTTTCCTAATCTGCCCTACCTCCTGGATGGG
AAGAACAAGATCACCCAGAGCAATGCCATCTTGCGCTACATCGCTCGCAAGCACAACATGTGTGGTGAGA
CTGAAGAAGAAAAGATTCGAGTGGACATCATAGAGAACCAAGTAATGGATTTCCGCACACAACTGATAAG
GCTCTGTTACAGCTCTGACCACGAAAAACTGAAGCCTCAGTACTTGGAAGAGCTACCTGGACAACTGAAA
CAATTCTCCATGTTTCTGGGGAAATTCTCATGGTTTGCCGGGGAAAAGCTCACCTTTGTGGATTTTCTCA
CCTATGATATCTTGGATCAGAACCGTATATTTGACCCCAAGTGCCTGGATGAGTTCCCAAACCTGAAGGC
TTTCATGTGCCGTTTTGAGGCTTTGGAGAAAATCGCTGCCTACTTACAGTCTGATCAGTTCTGCAAGATG
CCCATCAACAACAAGATGGCCCAGTGGGGCAACAAGCCTGTATGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC201013 representing NM_000849
Red=Cloning site Green=Tags(s)

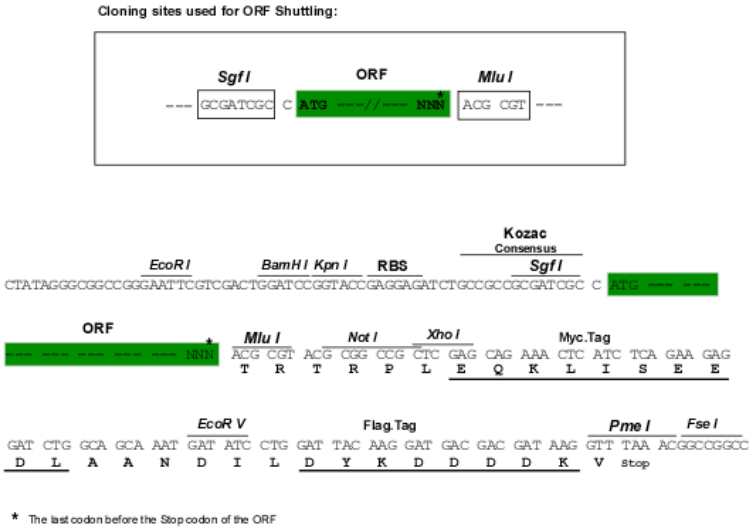
MSCESSMVLGYWDIRGLAHAIRLLLEFTDTSYEEKRYTCGEAPDYDRSQWLDVKFKLDLDFPNLPYLLDG
KNKITQSNAILRYIARKHNMCGETEEEKIRVDIIENQVMDFRTQLIRLCYSSDHEKLKPQYLEELPGQLK
QFSMFLGKFSWFAGEKLTFVDFLTYDILDQNRIFDPKCLDEFPNLKAFMCRFEALEKIAAYLQSDQFCKM
PINNKMAQWGNKPVC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1514_b08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000849

ORF Size: 675 bp

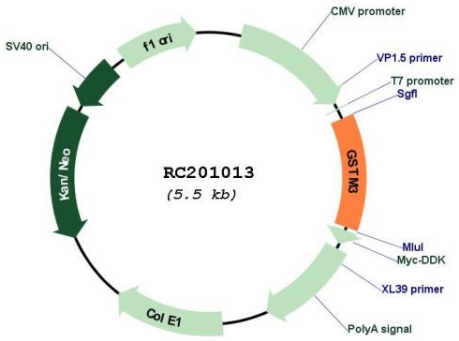
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

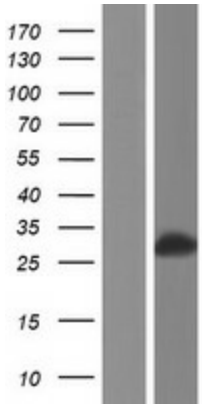
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_000849.5
RefSeq Size:	3948 bp
RefSeq ORF:	678 bp
Locus ID:	2947
UniProt ID:	P21266
Cytogenetics:	1p13.3
Domains:	GST_N, GST_C
Protein Pathways:	Drug metabolism - cytochrome P450, Glutathione metabolism, Metabolism of xenobiotics by cytochrome P450
MW:	26.4 kDa
Gene Summary:	Cytosolic and membrane-bound forms of glutathione S-transferase are encoded by two distinct supergene families. At present, eight distinct classes of the soluble cytoplasmic mammalian glutathione S-transferases have been identified: alpha, kappa, mu, omega, pi, sigma, theta and zeta. This gene encodes a glutathione S-transferase that belongs to the mu class. The mu class of enzymes functions in the detoxification of electrophilic compounds, including carcinogens, therapeutic drugs, environmental toxins and products of oxidative stress, by conjugation with glutathione. The genes encoding the mu class of enzymes are organized in a gene cluster on chromosome 1p13.3 and are known to be highly polymorphic. These genetic variations can change an individual's susceptibility to carcinogens and toxins as well as affect the toxicity and efficacy of certain drugs. Mutations of this class mu gene have been linked with a slight increase in a number of cancers, likely due to exposure with environmental toxins. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Nov 2008]

Product images:



Circular map for RC201013



Western blot validation of overexpression lysate (Cat# [LY424491]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201013 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).