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Product datasheet for RC200730

Lysozyme (LYZ) (NM_000239) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lysozyme (LYZ) (NM_000239) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lysozyme
Synonyms:	LYZF1; LZM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC200730 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAGGCTCTCATTGTTCTGGGGCTTGTCCTCCTTTCTGTTACGGTCCAGGGCAAGGTCTTTGAAAGGT
GTGAGTTGGCCAGAACTCTGAAAAGATTGGGAATGGATGGCTACAGGGGAATCAGCCTAGCAAACTGGAT
GTGTTTGGCCAAATGGGAGAGTGGTTACAACACACGAGCTACAAACTACAATGCTGGAGACAGAAGCACT
GATTATGGGATATTTCAGATCAATAGCCGCTACTGGTGTAATGATGGCAAAACCCCAGGAGCAGTTAATG
CCTGTCATTTATCCTGCAGTGCTTTGCTGCAAGATAACATCGCTGATGCTGTAGCTTGTGCAAAGAGGGT
TGTCCGTGATCCACAAGGCATTAGAGCATGGGTGGCATGGAGAAATCGTTGTCAAAACAGAGATGTCCGT
CAGTATGTTCAAGGTTGTGGAGTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200730 protein sequence
Red=Cloning site Green=Tags(s)

MKALIVLGLVLLSVTVQGKVFERCELARTLKRLGMDGYRGISLANWMCLAKWESGYNTRATNYNAGDRST
DYGIFQINSRYWCNDGKTPGAVNACHLSCSALLQDNIADAVACAKRVVRDPQGIRAWVAWRNRCQNRDVR
QYVQGCGV

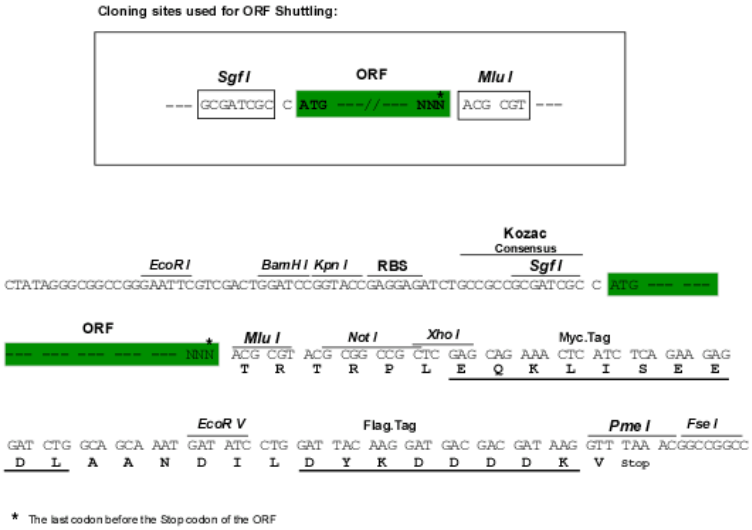
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6053_f03.zip

View online »

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000239

ORF Size: 444 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.

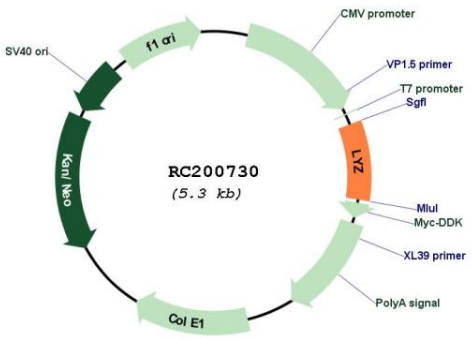
RefSeq: NM_000239.3

RefSeq Size: 1516 bp

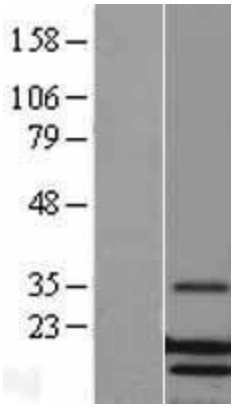
RefSeq ORF: 447 bp

Locus ID:	4069
UniProt ID:	P61626
Cytogenetics:	12q15
Domains:	lys
Protein Families:	Druggable Genome
MW:	16.5 kDa
Gene Summary:	This gene encodes human lysozyme, whose natural substrate is the bacterial cell wall peptidoglycan (cleaving the beta[1-4]glycosidic linkages between N-acetylmuramic acid and N-acetylglucosamine). Lysozyme is one of the antimicrobial agents found in human milk, and is also present in spleen, lung, kidney, white blood cells, plasma, saliva, and tears. The protein has antibacterial activity against a number of bacterial species. Missense mutations in this gene have been identified in heritable renal amyloidosis. [provided by RefSeq, Oct 2014]

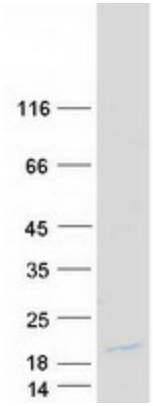
Product images:



Circular map for RC200730



Western blot validation of overexpression lysate (Cat# [LY400091]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200730 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified LYZ protein (Cat# [TP300730]). The protein was produced from HEK293T cells transfected with LYZ cDNA clone (Cat# RC200730) using MegaTran 2.0 (Cat# [TT210002]).