

## Product datasheet for **RC221676**

### **LYK5 (STRADA) (NM\_001003787) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	LYK5 (STRADA) (NM_001003787) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	LYK5
Synonyms:	LYK5; NY-BR-96; PMSE; StIk; STRAD; STRAD alpha
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC221676 representing NM\_001003787  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTCATTCTTGTAAAGTAACCAGAGCGAATCAGCGGTTGGTCTCGGAAAAGTTCATTGTTGAGGGCT  
 TAAGAGATTTGGAATTTTGGAGAGCAGCCTCCGGGTGACACTCGGAGAAAAACCAATGATGCGAGCTC  
 AGAGTCAATAGCATCCTTCTCTAAACAGGAGGTATGAGTAGCTTCTGCCAGAGGGAGGGTGTACGAG  
 CTGCTCACTGTGATAGGCAAAGGATTTGAGGACCTGATGACTGTGAATCTAGCAAGGTACAAACCAACAG  
 GAGAGTACGTGACTGTACGGAGGATTAACCTAGAAGCTTGTCCAATGAGATGGTAACATTCTTGCAGGG  
 CGAGCTGCATGTCTCAAACCTTCAACCATCCCAATATCGTGCCATATCGAGCCACTTTTATTGCAGAC  
 AATGAGCTGTGGGTTGTACATCATTATGGCATAACGGTCTGCAAAAAGATCTCATCTGTACACACTTCA  
 TGGATGGCATGAATGAGCTGGCGATTGCTTACATCCTGCAGGGGGTCTGAAGGCCCTCGACTACATCCA  
 CCACATGGGATATGTACACAGGAGTGTCAAAGCCAGCCACATCCTGATCTCTGTGGATGGGAAGGTCTAC  
 CTGTCTGGTTTGGCGAGCAACCTCAGCATGATAAGCCATGGGCAGCGGCAGCGAGTGGTCCACGATTTTC  
 CCAAGTACAGTGTCAAGTTCTGCCGTGGCTCAGCCCCGAGGTCCTCCAGCAGAATCTCCAGGGTTATGA  
 TGCCAAGTCTGACATCTACAGTGTGGGAATCACAGCCTGTGAACTGGCCAACGGCCATGTCCCCTTAAG  
 GATATGCCTGCCACCCAGATGCTGCTAGAGAACTGAACGGCACAGTGCCTGCCTGTTGGATACCAGCA  
 CCATCCCCGCTGAGGAGCTGACCATGAGCCCTTCGCGCTCAGTGGCCAACCTTGGCCTGAGTGACAGCCT  
 GACCACCAGCACCCCGGCCCTCAACGGTACTCGCCCTCCCACCCCTACCACCGAACCTTCTCCCC  
 CACTTCCACCACCTTTGTGGAGCAGTGCCTCAGCGCAACCCGGATGCCAGGCCAGTCCAGCACCCTCC  
 TGAACCACTCTTCTTCAAGCAGATCAAGCGACGTGCCTCAGAGGCTTTGCCCGAATTGCTTCGTCCTGT  
 CACCCCATACCAATTTTGGGGCAGCCAGTCTCAGGACCACAGTGAATCTTTGGCCTGGTAACAAAC  
 CTGGAAGAGCTGGAGGTGGACGATTGGGAGTTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC221676 representing NM\_001003787  
 Red=Cloning site Green=Tags(s)

MSFLVSKPERIRRWSEKFIVEGLRDLELFGEQPPGDTRRKTNDASSEIASFSKQEVMSFLPEGGCYE  
 LLTVIGKGFEDLMTVNLARYKPTGEYVTVRRINLEACSNEMVTFMQGELHVSFLFHPNIVPYRATFIAD  
 NELWVVTSMAYGSAKDLICTHFMDGMNELAIAYILQGVKALDYIHHMGYVHRSVKASHILISVDGKVV  
 LSGLRNL SMISHGQRQRVVHDFPKYSVKVLPWLSPEVLQQLQGYDAKSDIYSVGITACELANGHVPFK  
 DMPATQMLLEKLNQTVPCLLDTSTIPAELTMSPSRVANSGLSDSLTTSTPRPSNGDSPSHPYHRTFSP  
 HFHHFVEQCLQRNPDARPSASTLLNHSFFKQIKRRASEALPELLRPVTPITNFEQSQSDHSGIFGLVTN  
 LEELEVDDWEF

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8059\\_d06.zip](https://cdn.origene.com/chromatograms/mk8059_d06.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_001003787

**ORF Size:** 1293 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\\_001003787.4](#)

**RefSeq Size:** 2223 bp

**RefSeq ORF:** 1296 bp

**Locus ID:** 92335

**UniProt ID:** [Q7RTN6](#)

**Cytogenetics:** 17q23.3

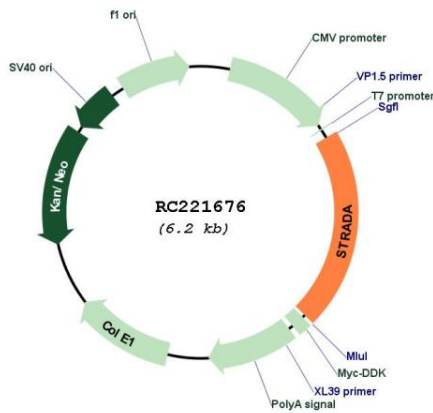
**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** mTOR signaling pathway

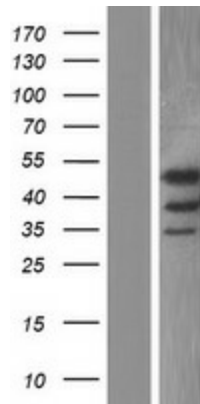
**MW:** 48.2 kDa

**Gene Summary:** The protein encoded by this gene contains a STE20-like kinase domain, but lacks several residues that are critical for catalytic activity, so it is termed a 'pseudokinase'. The protein forms a heterotrimeric complex with serine/threonine kinase 11 (STK11, also known as LKB1) and the scaffolding protein calcium binding protein 39 (CAB39, also known as MO25). The protein activates STK11 leading to the phosphorylation of both proteins and excluding STK11 from the nucleus. The protein is necessary for STK11-induced G1 cell cycle arrest. A mutation in this gene has been shown to result in polyhydramnios, megalencephaly, and symptomatic epilepsy (PMSE) syndrome. Multiple transcript variants encoding different isoforms have been found for this gene. Additional transcript variants have been described but their full-length nature is not known. [provided by RefSeq, Sep 2009]

**Product images:**



Circular map for RC221676



Western blot validation of overexpression lysate (Cat# [LY424002]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221676 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).