

Product datasheet for **RG220336**

Liprin alpha 2 (PPFIA2) (NM_003625) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Liprin alpha 2 (PPFIA2) (NM_003625) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PPFIA2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG220336 representing NM_003625 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATGTGTGAAGTGATGCCACGATTAATGAGGACACCCCAATGAGCCAAAGGGGTCCCAAAGCAGTG
GCTCGGACTCAGACTCCCATTTTGAGCAGCTGATGGTGAATATGCTAGATGAAAGGGATCGTCTTCTAGA
CACCTTCGGGAGACCCAGGAAAGCCTCTCACTTGCCAGCAAAGACTTCAGGATGTCATCTATGACCGA
GACTCACTCCAGAGACAGCTCAATTCAGCCCTGCCACAGGATATCGAATCCCTAACAGGAGGGCTGCTG
GTTCTAAGGGGCTGATCCACCGGAATTTGCTGCACTGACAAAAGAATTAATGCCTGCAGGGAACAAT
TCTAGAAAAGGAAGAAGAAATCTCTGAACCTTAAAGCTGAAAGAAACAACAAGACTATTACTGGAGCAT
TTGGAGTGCCTTGTGTCACGACATGAAAGATCACTAAGAATGACGGTGGTAAAACGGCAAGCCAGTCTC
CCTCAGGAGTATCCAGTGAAGTTGAAGTTCTCAAGGCACTGAAATCTTTGTTGAGCACCACAAGCCCTT
GGATGAAAAGGTAAGGGAGCGACTGAGGGTTTCTTTAGAAAGAGTCTCTGCACTGGAAGAAGAACTAGCT
GCTGCTAATCAGGAGATTGTTGCCTTGCCTGAACAAAATGTTTCATATACAAAGAAAAATGGCATCAAGCG
AGGGATCCACAGAGTCAGAACATCTTGAAGGGATGGAACCTGGACAGAAAGTCCATGAGAAGCGTTTGTG
CAATGGTTCTATAGACTCAACCGATGAACTAGTCAAATAGTTGAACTACAAGAATTGCTTGAAAAGCAA
AACTATGAAATGGCCAGATGAAAGAACGTTTAGCAGCCCTTTCTCCCGAGTGGGAGAGGTGGAACAGG
AAGCAGAGACAGCAAGAAAGGATCTCATTAAAACAGAAGAAATGAACACCAAGTATCAAAGGGACATTAG
GGAGGCCATGGCACAAAAGGAAGATATGGAAGAAAGAATTACAACCCCTGAAAAGCGTTACCTCAGTGCT
CAGAGAGAATCTACCTCCATACATGACATGAATGATAAACTAGAAAAATGAGTTAGCAAATAAAGAAGCTA
TCCTGCGGCAGATGGAAGAGAAAAACAGACAGTTACAAGAACGCTTTGAGCTAGCTGAACAAAAGTTGCA
GCAGACCATGAGAAAGGCTGAAACCTTGCTGAAGTAGAGGCTGAACTGGCTCAGAGAATTGCAGCCCTA
ACCAAGGCTGAAGAGAGACATGGAATATTGAAGAACGTATGAGACATTTAGAGGGTCAACTGAAGAGA
AGAATCAAGAACCTCAAAGAGCTAGGCAAAGAGAGAAAAATGAATGAGGAGCATAACAAGAGATTATCGGA
TACGGTTGATAGACTTCTGACTGAATCCAATGAACGCCTACAACACTAAAGGAAAGAATGGCTGCT
CTAGAAGAAAAGAATGTTTTAATTCAAGAATCAGAAACTTTAGAAAGAATCTTGAAGAATCTTTACATG
ATAAGGAAAGATTAGCAGAAGAAATTGAAAAGCTGAGATCTGAACCTTGACCAATTGAAAATGAGAACTGG



[View online »](#)

CTCTTTAATTGAACCCACAATACCAAGAACTCATCTAGACACCTCAGCTGAGTTGCGGTA CTCACTGAGTGGGA
TCCCTAGTGGACAGCCAGTCTGATTACAGAACTAAAGTAATAAGAAGACCAAGGAGAGGCCGCATGG
GTGTGCGAAGAGATGAGCCAAAGGTGAAATCTCTTGGGGATCACGAGTGGAACTAGAACTCAACAGATTGG
AGTACTAAGCAGCCACCCTTTTGAAGTGACACTGAAATGTCTGATATTGATGATGACAGAGAAACA
ATTTTTAGCTCAATGGATCTTCTCTCCAAGTGGTCATCCGATGCCAGACGCTAGCCATGATGCTTC
AGGAACAATTGGATGCCATCAACAAAGAAATCAGGCTAATTCAGGAAGAAAAAGAACTACAGAGTTGCC
TGCTGAAGAAATTGAAAATAGAGTGGCTAGTGTGAGCCTCGAAGGCCTGAATTTGGCAAGGGTCCACCCA
GGTACCTCCATTACTGCCCTGTGTTACAGCTTCATCGCTGGCCAGTTCATCTCCCCCAGTGGACACTCAA
CTCCAAAGCTCACCCCTCGAAGCCTGCCAGGAAATGGATCGGATGGGAGTCATGACACTGCCAAGTGA
TCTGAGGAAACATCGGAGAAAGATTGCAGTTGTGGAAGAAGATGGTCGAGAGGACAAAGCAACAATAAA
TGTGAACTTCTCCTCCTACCCCTAGAGCCCTCAGAATGACTCACACTCTCCCTTCTCCTACCACA
ATGATGCTCGAAGTAGTTTATCTGTCTCTTGGCCAGAAAGCCTCGGGCTTGGTAGTCCAACAGCAG
CCAAGACTCTTTCACAAAGCCCCAAGAAGAAAGGAATCAAGTCTTCAATAGGACGTTTGTGGTAA
AAAGAAAAGCTCGACTTGGGCAGCTCCGAGGCTTTATGGAGACTGAAGCTGCAGCTCAGGAGTCCCTGG
GGTTAGGCAAACCGAACTCAAGCTGAGAAGGATCGAAGACTAAAGAAAAGCATGAACCTCTTGAAGA
AGCTCGGAGAAAAGGATTACCTTTGCCAGTGGGATGGGCAACTGTGGTCGCATGGCTAGAGCTTTGG
TTGGGAATGCCTGCGTGGTACGTGGCAGCCTGCCGAGCCAACGTGAAGAGTGGTGCCATCATGTCTGCTT
TATCTGACACTGAGATCCAGAGAGAAAATGGAATCAGCAATCCACTGCATCGCTTAAAACCTCGATTAGC
AATCCAGGAGATGGTTTCCCTAACAAAGTCTTACAGCTCCTCCAACATCTCGAACTCCTCAGGCAACGTT
TGGGTGACTCATGAAGAAATGAAAAATCTGCAGCTCCAGCAAAAACGAAAGAATCTGAGGAAGGAAGCT
GGGCCAGTGTCCGGTTTTCTACAGACCCTGGCTTATGGAGATATGAATCATGAGTGGATTGGAAATGA
ATGGCTTCCCAGCTTGGGGTACCTCAGTACAGAAGTACTTTATGGAATGCTTGGTAGATGCAAGAATG
TTAGATCACCTAACAAAAAAGATCTCCGTGCCATTTAAAAATGGTGGATAGTTCCATCGAACAAGTT
TACAATATGGAATTATGTGCTTAAAGAGGTTGAATTATGACAGAAAAGAACTAGAAAAGAAGACGGGAAGC
AAGCCAACATGAAATAAAAGACGTGTTGGTGTGGAGCAATGACCGAGTTATTCGCTGGATACAAGCAATT
GGACTTCGAGAATATGCAATAATATACTTGGAGCGGTGTGCATGGCTCACTTATAGCCCTGGATGAAA
ACTTTGACTACAGCAGCTTAGCTTTATTATTACAGATTCCAACACAGAACACCCAGGCAAGGCAGATTCT
TGAAAGAGAATAACAATAACCTCTTGGCCCTGGAACTGAAAGGCGACTGGATGAAAGTATGACAAGAAC
TTCAGACGTGGATCAACCTGGAGAAGGCAGTTTCCCTCGTGAAGTACATGGAATCAGCATGATGCCTG
GGTCTCAGAAACATTACCAGCTGGATTTAGGTTAACCACAACCTCTGGGCAGTCAAGAAAAATGACAAC
AGATGTTGCTTCATCAAGACTGCAGAGGTTAGACAACCTCACTGTTCCGCACATACTCATGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG220336 representing NM_003625
 Red=Cloning site Green=Tags(s)

MMCEVMP TINEDTPMSQRGSQSSGSDSDSHFEQLMVNMLDERDRLLDTLRETQESLSLAQQRLQDVIYDR
 DSLQ RQLNSALPQDIESLTGGLAGSKGADPPEFAALTKELNACREQLLEKEEEISELKAERNRLLLEH
 LECLVSRHERSLRMTVVKRQAQSPSGVSSEVEVLKALKSLFEHHKALDEKVRERLRLVSLERVSAL EEELA
 AANQEIVALREQNVHIQRKMASSEGSTSEHLEGMPEGQKVHEKRLSNGSIDSTDETSQIVELQELLEKQ
 NYEMAQMKERLAALSSRVGEVEQEAETARKDLIKTEEMNTKYQRDI REAMAQKEDMEERITTTLEKRYLSA
 QRESTSIHDMNDKLENELANKEAILRQMEEKNRQLQERLELAEQKLQQTMRKAETLPEVEAELAQR IAAL
 TKAEERHGNI EERMRLHLEGQLEEKNQELQRARQREKMNEEHNKRLSDTVDRLLTESNERLQLHLKERMAA
 LEEKNVL IQESETFRKNLEESLHDKERL AEEIEKLRSEL DQLKMR TGSLIEPTIPRTHLDTSAELRYSVG
 SLVDSQSDYRTTKVIRRRPRRGRMGVRRDEPKVKSLGDHEWNRTQQIGVLS SPPFESDTEMSDIDDDDR ET
 IFSSMDLLSPSGHSDAQTLAMMLQEQLDAINKEIRLIQEEKESTELRAEEIENRVASVSL EQLNLARVHP
 GTSITASVTASSLASSPPSGHSTPKLTPRSPAREMDRMGMVMTLP SDLRKHRRKIAVVEEDGREDKATIK
 CETSPPTPRALRMTHTLPSSYHNDARSSL SVSLEPESLGLGSANSSQDSLHKAPKKKGIKSSIGR LFGK
 KEKARLGQLRGFMETEA AAQESLGLGKLTQA EKDRRLKKKHELLEEARRKGLPF AQWDGPTVVAWLELW
 LGMPAWYVAACRANVKSGAIMSALSDTEIQREIGISNPLHRLKRLAIQEMVSLTSPSAPTSRTPSGNV
 WYTHEEMENLAAPAKTKESEEGSWAQC PVFLQTLAYGDMNHEWIGNEWLP SLGLPQYRSYFMECLVDARM
 LDHLTKKDLRVHLKMVDSFHRTSLQYGIMCLKRLNYDRKELERRREASQHEIKDVLVWSNDRVIRWIQAI
 GLREYANNILESGVHGSLIALDENFDYSSLALLQIPTQNTQARQILEREYNNLLALGTERRLDESDDKN
 FRRGSTWRRQFPFREVHGISMMPGSSETLPAGFRLTTTSGQSRKMTTDVASSRLQLRDNSTVRYTSC

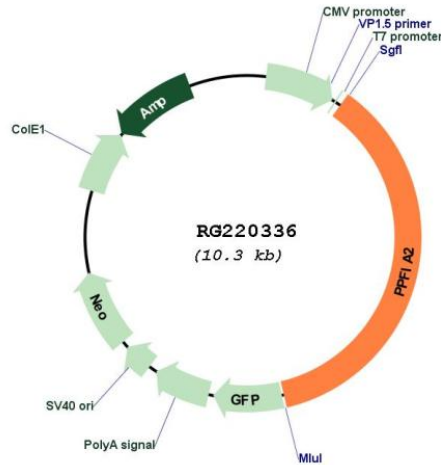
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_003625

ORF Size: 3771 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_003625.5](#)

RefSeq Size: 4052 bp

RefSeq ORF: 3774 bp

Locus ID: 8499

UniProt ID: [O75334](#)

Cytogenetics: 12q21.31

Domains: SAM

Protein Families: Druggable Genome

Gene Summary: The protein encoded by this gene is a member of the LAR protein-tyrosine phosphatase-interacting protein (liprin) family. Liprins interact with members of LAR family of transmembrane protein tyrosine phosphatases, which are known to be important for axon guidance and mammary gland development. It has been proposed that liprins are multivalent proteins that form complex structures and act as scaffolds for the recruitment and anchoring of LAR family of tyrosine phosphatases. This protein has been shown to bind the calcium/calmodulin-dependent serine protein kinase (MAGUK family) protein (also known as CASK) and proposed to regulate higher-order brain functions in mammals. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2013]