

Product datasheet for SC101236

FAK (PTK2) (NM_153831) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FAK (PTK2) (NM_153831) Human Untagged Clone
Tag:	Tag Free
Symbol:	FAK
Synonyms:	FADK; FADK 1; FAK; FAK1; FRNK; p125FAK; pp125FAK; PPP1R71
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_153831 edited
 ATGGCAGCTGCTTACCTTGACCCCAACTGAATCACACACCAAATTCGAGTACTAAGACT
 CACCTGGGTACTGGTATGGAACGTTCTCCTGGTGCAATGGAGCGAGTATTAAGGTCCTT
 CATTATTTTAAAAGCAATAGTGAGCCAACCACCTGGGCCAGTATTATCAGGCATGGAGAT
 GCTACTGATGTCAGGGGCATCATTCAAGAAGATAGTGGACAGTCAAAAAGTAAAGCATGTG
 GCCTGCTATGGATTCCGCCTCAGTACCTGCGGTGAGAGGAGTTCACTGGCTTCACGTG
 GATATGGGCGTCTCCAGTGTGAGGGAGAAGTATGAGCTTGCTCACCCACCAGAGGAGTGG
 AAATATGAATTGAGAATTCGTTATTTGCCAAAAGGATTTCTAAACCAGTTTACTGAAGAT
 AAGCCAACCTTGAATTTCTTCTATCAACAGGTGAAGAGCGATTATGTTAGAGATAGCT
 GATCAAGTGGACCAGGAAATGCTTTGAAGTTGGGTTGTCTAGAAATACGGCGATCATA
 TGGGAGATGCGGGCAATGCACTAGAAAAGAAGTCTAACTATGAAGTATTAGAAAAGAT
 GTTGGTTTAAAGCGATTTTTTCCCTAAGAGTTTACTGGATTCTGTCAAGGCCAAAACACTA
 AGAAAACCTGATCCAACAACATTTAGACAATTTGCCAACCTTAATAGAGAAGAAAGTATT
 CTGAAATCTTTGAGATCCTGTCTCCAGTCTACAGATTTGATAAGGAATGCTTCAAGTGT
 GCTCTTGGTTCAAGCTGGATTATTTCAAGTGGAACTGGCAATCGGCCCAGAAGAAGGAATC
 AGTTACCTAACGGACAAGGGCTGCAATCCCACACATCTTGCTGACTTCACTCAAGTGCAA
 ACCATTCAGTATTCAAACAGTGAAGACAAGGACAGAAAAGGAATGCTACAACATAAAAATA
 GCAGGTGCACCCGAGCCTCTGACAGTACAGGCACCATCCCTAACCATTGCGGAGAATATG
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 AAGCAAGGCATGCGGACACAGCGCTCTGTGTGAGAAAACAGATGATTATGCTGAGATT
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 AGAATAGAACTTGGACGATGATTGGAGAAGGCCAATTTGGAGATGTACATCAAGGCATT
 TATATGAGTCCAGAGAATCCAGCTTTGGCGTTGCAATTAACATGTAACAACTGTACT
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 CCTCATATTGTGAAGCTGATTGGAGTCATCACAGAGAATCCTGTCTGGATAATCATGGAG
 CTGTGCACACTTGAGAGCTGAGGTCATTTTTGCAAGTAAGGAAATACAGTTTGATCTA



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GCATCTTTGATCCTGTATGCCTATCAGCTTAGTACAGCTCTTGCAATCTAGAGAGCAAA
 AGATTTGTACACAGGGACATTGCTGCTCGGAATGTTCTGGTGTCTCAAATGATTGTGTA
 AAATTAGGAGACTTTGGATTATCCCGATATATGGAAGATAGTACTTACTACAAAGCTTCC
 AAAGGAAAATTGCCTATTAATGGATGGCTCCAGAGTCAATCAATTTTCGACGTTTTACC
 TCAGCTAGTGACGTATGGATGTTTGGTGTGTATGTGGGAGATACTGATGCATGGTGTG
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 TTACCAATGCCTCAAATTTGCCTCCTACCCCTACAGCCTTATGACGAAATGCTGGGCC
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 ATGTCCAGTAAAAATCCAGCCAGCCCCACCAGAGGAGTATGTCCCTATGGTGAAGGAAGTC
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 AGCACGTCTTGTACCCTCTTTTGAAGATGTTCTTAGCCTTCCACCAGCAGCGAGGAAT
 TAACCCTGTGCTCAGTCGCCAGCACTACAGCTCCAATTTTTTGAATGACCATCTGG
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 ATAGTGGAAGAGGAGAGCATGAAGCAAAGAATTCAGGAAACCAAGAGGCTGAGAATTC
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 TTATTTTCAAAAAAACTACAGCCCTTTTGTCTTACCTGCCTTTTACTTTTCGTGTGGATA
 TGTGAAGCATTGGGTCGGGAAGTGTGTAGAACACAATAAAAACTCATGTCTTTTTTC
 ACAGAATAATGTGCCAGTTTTTTGTAGCAATGATATTTCTTTGGAAGCAGAAATGCTTT
 GTACCAGACACCTCAAACCTGATTGAGGAGAAGTTCCAGAACCATCCCCTTTTTCCAT
 TTTTATATAATTTATAAAGAAAGATTAAGCCATGTTGACTATTTTACAGCCACTGGAGT
 TAACTAACCTTCTTGTATCTGTCTTCCAGGAGAGAATGAAGCAAAACAGGAATTTGG
 TTTTCTTTTGTGTCAGTTACACCATCCATTCTGTTAATTTTAAAAAATATACCCTCC
 CTTTAGTTTGTGGGGATATAAATTATTCTCAGGAAGAATATAATGAACTGTACAGTTA
 CTTTGACCTATTAAGAGGTGTTACCAGTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
 AAAAAAACTCGACTCTAGATTGCGGCCGGTACATAGCTGTTTCTGAACAGATCCCGG
 GTGGCATCCCTGTGACCCTCCCAGTGCCTCTCTGGCCCTGGAAGTTGCCAC

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_153831 unedited
 AATCTGGGATTTGTAAACGACTTACTATAGGCGGCACGCGCGCCGGCCGGTCCGAGCA
 GAACTGGGGCTCCCTTGCATCTTCCAGTTACAAATTCAGTGCCTTCTGCAGTTTCCCCAG
 AGCTCCTCAAGAAATAACGGGAAGGGAGAATATGACAGATACCTAGCATCTAGCAAAATAAT
 GGCAGCTGCTTACCTTGACCCCAACTTGAATCACACACCAAAATTCGAGTACTAAGACTCA
 CCTGGGTACTGGTATGGAACGTTCTCCTGGTGAATGGAGCGAGTATTAAGGTCTTTCA
 TTATTTTGAAGCAATAGTGAGCCAACCACTGGGCCAGTATTATCAGGCATGGAGATGC
 TACTGATGTCAGGGGCATCATTCAAGAGATAGTGGACAGTCAACAAGTAAAGCATGTGGC
 CTGCTATGGATTCCGCCTCAGTCACCTGCGGTCAGAGGAGTTCACTGGCTTACAGTGGAA
 TATGGGCGTCTCCAGTGTGAGGGAGAAGTATGAGCTTGCTCACCCACCAGAGGAGTGAA
 ATATGAATTGAGAATTCGTTATTTGCCAAAAGGATTTCTAAACCAGTTTACTGAAGATAA
 GCCAACTTTGAATTTCTTCTATCAACAGGTGAAGAGCGATTATATGTTAGAGATAGCTGA
 TCAAGTGGACCANGAAATGCTTTGAAGTTGGTGTCTAGAAAACGGCGATCATACTG
 GGAGATCGGGGCAATGCACTAGANAAAAGTCTACTATGAAGTATTAGAAAAAGATG
 TGGGTTAAAAGCGATTTTCTAAGAGTTTACTGGNATCTGTGAGGGCCAAACACTTAAA
 AACTGATCCCCACAACATTTAGACAATTTGCCAACCTTNATAGAGAAGAAGTATTCCTGA
 ATTCTTGG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_153831 unedited
 TGTGTACCGCGCCGATTCTANGATCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
 TTTTTTTTACTGGTAACACCTTTTTTAATAGGTCAAAGTAACTGTACAGTTCATTATATTC
 TTCTGAAAAATAATTTATATCCCCAACAACTAAAGGGAGGGTATATTTTTTCAAAT
 AACAAATGGATGGTGTAACTGGACATCAAAGAAAACCAAAATTCCTGTTTTGCTTCATT
 CTCTCCTGGGAAAACAGATACAAGGAAGGGTTAGTTAACTCCAGTGGCTGTAAAATAGTC
 AACATGGCTTTAATCTTTCTTTATAAATATATAAAAAATGGAAAAAGGGGATGGTTCTGG
 AACTTCTCCTCAATGCAGTTTGGAGGTGCTCTGGTACAAAGCATTCTGCTTCCAAGAGA
 AATATCATTGCTACAAAAAACTGGCACATTATTCTGTGAAAAAAGACATGAGTTTTTGT
 TGTGTTCTACAGCTAGTTCCCGACCCAATGCTTCACATATCCACACGAAAGTAAAAGGCA
 GGTAAGACAAAAAGGGCTGTAGTTTTTTCTGAAATAACTCAAGTCTTCAAATATAGCTT
 TTATATCTTTGTAAAGTGGGATTAGCATATTGCAACTGAAGGGTGTCTAACAAACAAA
 AATTCCAGTCTNGATAATAATTCTATGGTAGACAAAAGAATTCTCAGCCTCTGGGTTTC
 CTGGAATCTTTGCTTTATGCTCNTCCTCTTCCCTATGCACCTAAGGTAGTTTAGGAATA
 AGATGTCACCCCTTGGCCATCCCCCTTTAAAACGTATCTTAATGTGAACATAAATGTTC
 CTTTCATGATGCTTAAAAGCTTACCTATAATTTTATTCTTAAAAAACGCCCATTTTGA
 TCCGNGNATTTTTCCGAAATTCCTGGTTGAAAAAACAACCCAAAATGAACCCCATCAAG
 TGTGGGTTAACCTTT

Restriction Sites:

NotI-NotI

ACCN:

NM_153831

Insert Size:

4700 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_153831.2](#), [NP_722560.1](#)

RefSeq Size: 4453 bp

RefSeq ORF: 3159 bp

Locus ID: 5747

UniProt ID: [Q05397](#)

Cytogenetics: 8q24.3

Domains: B41, pkinase, TyrKc, S_TKc, Focal_AT

Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: Axon guidance, Chemokine signaling pathway, ErbB signaling pathway, Focal adhesion, Leukocyte transendothelial migration, Pathways in cancer, Regulation of actin cytoskeleton, Small cell lung cancer, VEGF signaling pathway

Gene Summary: This gene encodes a cytoplasmic protein tyrosine kinase which is found concentrated in the focal adhesions that form between cells growing in the presence of extracellular matrix constituents. The encoded protein is a member of the FAK subfamily of protein tyrosine kinases but lacks significant sequence similarity to kinases from other subfamilies. Activation of this gene may be an important early step in cell growth and intracellular signal transduction pathways triggered in response to certain neural peptides or to cell interactions with the extracellular matrix. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2017]

Transcript Variant: This variant (1) differs in the 5' UTR and coding sequence compared to variant 2. The resulting isoform (a) is shorter at the N-terminus compared to isoform b. Variants 1 and 5 both encode the same isoform (a).