

Product datasheet for RC210379

Protein Z (PROZ) (NM_003891) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Protein Z (PROZ) (NM_003891) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Protein Z
Synonyms:	PZ
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210379 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAGGCTGCGTCCCCTGCTCCAGGGCCTGGTCTGGTCTCGCCCTCCATCGTGTGGAGCCCTCAG
TATTTCTCCCGCCTCAAAGCAAACGACGTTCTGGTGGAGGTGGAAGCGTGC GGCTCCTATCTTCTGGA
AGA ACTCTTCGAGGGAACTTGGAAAAAGAAATGTTATGAAGAAATCTGTGTCTATGAAGAAGCAAGAGAA
GTGTTTAAAAATGAAGTAGTCACTGATGAATTCTGGAGACGATATAAGGGCGGCTCCCCGTGCATCTCCC
AGCCCTGCCTCCACAACGGCTCTTGCCAGGACAGCATCTGGGGCTACACCTGCACCTGCTCCCCGGCTA
TGAGGGCAGCAACTGCGAGCTGGCTAAAAATGAATGTCACCCAGAGCGGACTGATGGGTGTCAACTTC
TGCTCCAGGACAGGAATCCTACACGTGCAGCTGTGCTCAGGGCTACAGGCTTGGTGGAGACCACAAAC
AGTGTGTGCCCCACGACCAAGTGTGCCTGCGGGGTGCTGACCTCTGAGAAGCGTGCACCGGATCTACAGGA
CCTCCCGTGGCAGGTAAGTTAACAAATCCGAAGGAAAAGACTTCTGTGGTGGTGTATAATACGGGAA
AATTTTGTACTGACAACAGCAAATGTTCACTGTTACACAGGAATATTACTGTAAAAACATATTTTAAACA
GAACGAGCCAAGACCCGCTGATGATCAAGATAACGCACGTCCATGTGCACATGCGGTATGACGCGGACGC
GGGGGAGAATGACCTGTCACTGCTGGAGCTGGAGTGGCCCATCCAGTGCCAGGTGCGGGGCTCCCCGTG
TGACCCCTGAGAAAGACTTCGCTGAGCACCTCCTCATCCACGCACCAGGGGCTCCTCAGCGGTGGG
CAGCAATGGCACTGACCTGGGCAACTCGCTGACCACGCGCCTGTACACTTGTGGAGGGGAGGAGTG
CGGCAGGTCTGAATGTGACTGTCAACACCAGGACCTACTGTGAGAGAAGCAGCGTGGCGGCCATGCAC
TGGATGGATGGAAGTGTGGTCACAGAGAACACAGAGGCTCCTGGTTTCTCACGGGGTCTGGGCTCGC
AGCCAGTAGGAGGGCAGGCTCACATGGTCTTGTACCAAGGTCTCCAGGTACTCACTCTGGTTTAAACA
GATCATGAAC

ACGCGTACGCGGCGGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC210379 protein sequence
Red=Cloning site Green=Tags(s)

MAGCVPLLQGLVVLALHRVEPSVFLPASKANDVLRWKRAGSYLLEELFEGNLEKECYEEICVYEEARE
 VFENEVVTDEFWRRYKGGSPCISQPCLHNGSCQDSIWGYTCTCSPGYEGSNCELAKNECHPERTDGCQHF
 CLPGQESYTCSCAQGYRLGEDHKQCVPHDQCACGVL TSEKRAPDLQDLPWQVKL TNSEGKDFCGGVIIRE
 NFVLTTAKCSLLHRNITVKTYFNRTSQDPLMIKITHVHVHMRYDADAGENDLSLLELEWPIQCPGAGLPV
 CTPEKDFAEHLLIPRTRGLLSGWARNGTDLGNSLITRTPVTLVEGEECGQVLNVTVTTRTYCERSSVAAMH
 WMDGSVVTREHRGSWFLTGVLGSPVGGQAHMVLVTKVSRYSLWFKQIMN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6137_b10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_003891

ORF Size: 1200 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_003891.2](#)

RefSeq Size: 1489 bp

RefSeq ORF: 1203 bp

Locus ID: 8858

UniProt ID: [P22891](#)

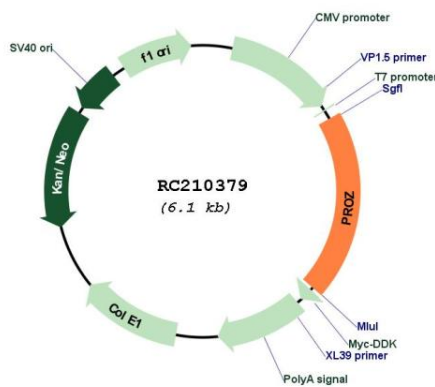
Cytogenetics: 13q34

Protein Families: Druggable Genome, Protease, Secreted Protein

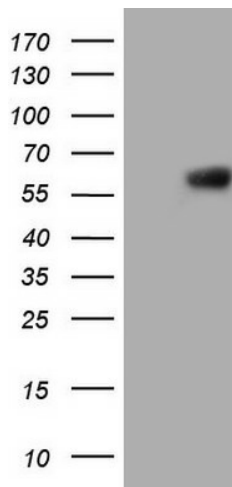
MW: 44.7 kDa

Gene Summary: This gene encodes a liver vitamin K-dependent glycoprotein that is synthesized in the liver and secreted into the plasma. The encoded protein plays a role in regulating blood coagulation by complexing with protein Z-dependent protease inhibitor to directly inhibit activated factor X at the phospholipid surface. Deficiencies in this protein are associated with an increased risk of ischemic arterial diseases and fetal loss. Mutations in this gene are the cause of protein Z deficiency. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Jan 2012]

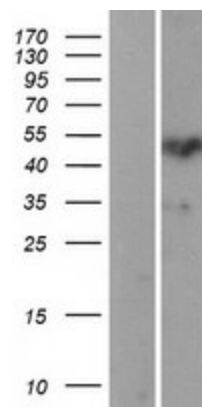
Product images:



Circular map for RC210379



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PROZ (Cat# RC210379, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PROZ (Cat# [TA806675]). Positive lysates [LY401283] (100ug) and [LC401283] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401283]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210379 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).