

Product datasheet for **TP315567L**

C3orf37 (HMCES) (NM_020187) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human chromosome 3 open reading frame 37 (C3orf37), transcript variant 2, 1 mg
Species:	Human
Expression Host:	HEK293T
Expression cDNA	>RC215567 protein sequence
Clone or AA Sequence:	Red=Cloning site Green=Tags(s)

MCGRTSCHLPRDVLTRACAYQDRRGQQLPEWRDPDKYCPSYNKSPQSNPVLRLHFEKDADSSERII
APMRWGLVPSWFKESDPSKLQFNTTNCRSDTVMEKRSFKVPLGKGRRCVVLADGFYEWQRCQGTNRQPY
FIYFPQIKTEKSGSIGAADSPENWEKVWDNRLLTMAGIFDCWEPPEGGDVLYSYTIITVDSCKGLSDIH
HRMPAILDGEEAVSKWLDGFEVSTQEALKLIHPTENITFHAVSSVNNNSRNNTPECLAPVDLVKKELRA
SGSSQRMLQWLATKSPKKEDSKTPQKEESDVPQWSSQFLQKSPLPTKRGTAGLLEQWLKREKEEPPVAKR
PYSQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Predicted MW:	40.4 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	<u>NP_064572</u>

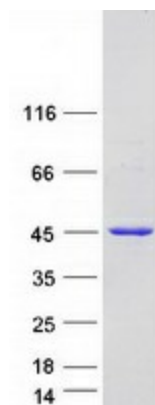


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Locus ID: 56941
UniProt ID: [Q96FZ2](#)
RefSeq Size: 1638
Cytogenetics: 3q21.3
RefSeq ORF: 1062
Synonyms: C3orf37; DC12; SRAPD1

Summary: Sensor of abasic sites in single-stranded DNA (ssDNA) required to preserve genome integrity by promoting error-free repair of abasic sites (PubMed:30554877). Acts as an enzyme that recognizes and binds abasic sites in ssDNA at replication forks and chemically modifies the lesion by forming a covalent cross-link with DNA (PubMed:30554877). The HMCES DNA-protein cross-link is then degraded by the proteasome (PubMed:30554877). Promotes error-free repair of abasic sites by acting as a 'suicide' enzyme that is degraded, thereby protecting abasic sites from translesion synthesis (TLS) polymerases and endonucleases that are error-prone and would generate mutations and double-strand breaks (PubMed:30554877). Acts as a protease: mediates autocatalytic processing of its N-terminal methionine in order to expose the catalytic cysteine (By similarity). Specifically binds 5-hydroxymethylcytosine (5hmC)-containing DNA in stem cells (By similarity). May act as an endonuclease that specifically cleaves 5hmC-containing DNA; additional experiments are however required to confirm this activity in vivo (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Coomassie blue staining of purified HMCES protein (Cat# [TP315567]). The protein was produced from HEK293T cells transfected with HMCES cDNA clone (Cat# [RC215567]) using MegaTran 2.0 (Cat# [TT210002]).