

## Product datasheet for PH315567

### C3orf37 (HMCES) (NM\_020187) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	C3orf37 MS Standard C13 and N15-labeled recombinant protein (NP_064572)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC215567
Predicted MW:	40.6 kDa
Protein Sequence:	>RC215567 protein sequence Red=Cloning site Green=Tags(s)

MCGRTSCHLPRDVLTRACAYQDRRGQQLPEWRDPDKYCPSYNKSPQNSPVLLSRLHF EKDADSSERII  
APMRWGLVPSWFKESDP SKLQFNTTNCRS DTVMEKRSFKVPLGKGRRCVVLADGFYEWQRCQGTNQRQPY  
FIYFPQIKTEKSGSIGAADSPENWEKVWDNRLLTMAGIFDCWEPPEGGDVLYSYTIITVDSCKGLSDIH  
HRMPAILDGEEAVSKWLDGFEVSTQEALKLIHPTENITFHAVSSVVNNSRNNTPECLAPVDLVVKKELRA  
SGSSQRMLQWLATKSPKEDSKTPQKEESDVPQWSSQFLQKSPLPTKRGTAGLLEQWLKREKEEEPVAKR  
PYSQ

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine and [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>2</sub> ]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<a href="#">NP_064572</a>
RefSeq Size:	1638
RefSeq ORF:	1062
Synonyms:	C3orf37; DC12; SRAPD1
Locus ID:	56941



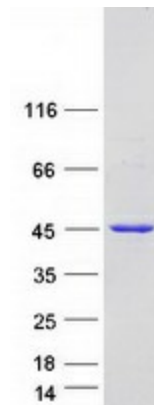
[View online »](#)

UniProt ID: [Q96FZ2](#)

Cytogenetics: 3q21.3

**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]).