

Product datasheet for PH308710

C3orf37 (HMCES) (NM_001006109) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	C3orf37 MS Standard C13 and N15-labeled recombinant protein (NP_001006109)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC208710
Predicted MW:	40.6 kDa
Protein Sequence:	>RC208710 protein sequence Red=Cloning site Green=Tags(s)
	MCGRTSCHLPRDVLTRACAYQDRRGQQLPEWRDPKYCPSYKSPQSNPVLLSRLHF EK DADSSERII APMRWGLVPSWFKESDP SKLQFNTTNCRS DTVMEKRSFKVPLGKGRRCVVLADGFYEWQRCQGTNQRQPY FIYFPQIKTEKSGSIGAADSPENWEKVWDNRLLTMAGIFDCWEPPEGGDVLYSYTIITVDSCKGLSDIH HRMPAILDGEEAVSKWLDGFEVSTQEALKLIHPTENITFHAVSSVVNNSRNNTPECLAPVDLVVKKELRA SGSSQRMLQWLATKSPKKEDSKTPQKEESDVPQWSSQFLQKSPLPTKRGTAGLLEQWLKREKEEEPVAKR 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- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-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:	<u>NP_001006109</u>
RefSeq Size:	1809
RefSeq ORF:	1062
Synonyms:	C3orf37; DC12; SRAPD1
Locus ID:	56941



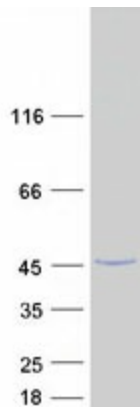
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UniProt ID: [Q96FZ2](#)

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# [TP308710]). The protein was produced from HEK293T cells transfected with HMCES cDNA clone (Cat# [RC208710]) using MegaTran 2.0 (Cat# [TT210002]).