

Product datasheet for PH302066

RPA70 (RPA1) (NM_002945) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	RPA1 MS Standard C13 and N15-labeled recombinant protein (NP_002936)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC202066
Predicted MW:	68.1 kDa
Protein Sequence:	>RC202066 protein sequence Red =Cloning site Green =Tags(s)

MVGQLSEGAIAAIMQKGDNIKPIQLVINIRPITGNSPPRYRLMSDGLNTLSSFMLATQLNPLVEEEQ
 LSSNCVCQIHRFIVNTLKDGRVILMEVLKSAEAVGVKIGNVPYNEGLGQPQVAPPAPASPAASS
 RPQPQNGSSGMGSTVSKAYGASKTFGKAAGPSLSHTSGGTQSKVVPISLTPYQSKWTICARVTNKSQIR
 TWSNSRGEGKLFLELVDESGEIRATAFNEQVDKFFPLIEVNVVYFSGKTLKIANKQFTAVKNDYEMTF
 NNETSVMPCEDDHLPTVQFDFTGIDLENKSKDSLVDIIGICKSYEDATKITVRSNNREVAKRNIYLM
 TSGKVVATLWGEDADKFDGSRQPVLAIKGARVSDFGGRSLSVLSSSTIIANPDIEAYKLRGWFDAEGQ
 ALDGVISIDLKSGGVGSNTNWKTLYEKSENLGQDKPDYFSSVATVVYLRKENCYQACPTQDCNKKV
 IDQQNGLYRCEKCDTEFPNFKYRMILSVNIADFQENQWVTCFQESAEAILGQNAAYLGELKDKNEQAFEE
 VFQANFRSFI FRVVRVKVETYNDESRIKATVMDVKPVDYREYGRRLVMSIRRSALM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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:	NP_002936
RefSeq Size:	4345
RefSeq ORF:	1848


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Synonyms: HSSB; MST075; REPA1; RF-A; RP-A; RPA70

Locus ID: 6117

UniProt ID: [P27694](#)

Cytogenetics: 17p13.3

Summary: This gene encodes the largest subunit of the heterotrimeric Replication Protein A (RPA) complex, which binds to single-stranded DNA (ssDNA), forming a nucleoprotein complex that plays an important role in DNA metabolism, being involved in DNA replication, repair, recombination, telomere maintenance, and co-ordinating the cellular response to DNA damage through activation of the ataxia telangiectasia and Rad3-related protein (ATR) kinase. The nucleoprotein complex protects the single-stranded DNA from nucleases, prevents formation of secondary structures that would interfere with repair, and co-ordinates the recruitment and departure of different genome maintenance factors. This subunit contains four oligonucleotide/oligosaccharide-binding (OB) domains, though the majority of ssDNA binding occurs in two of these domains. The heterotrimeric complex has two different modes of ssDNA binding, a low-affinity and high-affinity mode, determined by which ssDNA binding domains are utilized. The different binding modes differ in the length of DNA bound and in the proteins with which it interacts, thereby playing a role in regulating different genomic maintenance pathways. [provided by RefSeq, Sep 2017]

Protein Families: Druggable Genome, Stem cell - Pluripotency

Protein Pathways: DNA replication, Homologous recombination, Mismatch repair, Nucleotide excision repair

Product images:



Coomassie blue staining of purified RPA1 protein (Cat# [TP302066]). The protein was produced from HEK293T cells transfected with RPA1 cDNA clone (Cat# [RC202066]) using MegaTran 2.0 (Cat# [TT210002]).