

## Product datasheet for PH301413

### FZR1 (NM\_016263) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	FZR1 MS Standard C13 and N15-labeled recombinant protein (NP_057347)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC201413
Predicted MW:	54.8 kDa
Protein Sequence:	>RC201413 protein sequence Red=Cloning site Green=Tags(s)
	<p>MDQDYERRLLRQIVIQNENTMPRVTEMRRLLTPASSPVSSPSKHGDRFIPSRAGANWSVNFHRINENEKS  PSQNRKAKDATSDNGKDGLAYSALLKNELLGAGIEKVQDPQTEDRRLQPSTPEKKGLFTYSLSTRSSPD  DGNDVSPYSLSPVSNKSQKLLRSPRKPTRKISKIPFKVLDAPELQDDFYLNLDVWSSLNVLVGLGTCVY  LWSACTSQVTRLCDLSVEGDSVTSVGSERGNLVAVGTHKGFVQIWDAAAGKLSMLEGHTARV GALAWN  AEQLSSGSRDRMILQRDIRTPPLQSERRLQGHRQEVCGLKWSTDHQLLASGGNDNKL VWNHSSLSPVQQ  YTEHLAAVKAIWSPHQHGLLASGGGTADRCIRFWNTLTGQPLQCIDTGSQVCNLAWSKHANELVSTHG  SQNQILVWKYPSLTQVAKLTGHSYRVLYLAMSPDGEAIVTGAGDETLRFWNVFSKTRSTKESVSVLNLFT  RIR</p> <p>SGPTRTRPLEQKLI SEEDLAANDILDYKDDDDKV</p>
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- 13C6, 15N4]-L-Arginine and [U- 13C6, 15N2]-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_057347</a>
RefSeq Size:	3615
RefSeq ORF:	1479



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**Synonyms:** CDC20C; CDH1; FZR; FZR2; HCDH; HCDH1

**Locus ID:** 51343

**UniProt ID:** [Q9UM11](#)

**Cytogenetics:** 19p13.3

**Summary:** Substrate-specific adapter for the anaphase promoting complex/cyclosome (APC/C) E3 ubiquitin-protein ligase complex. Associates with the APC/C in late mitosis, in replacement of CDC20, and activates the APC/C during anaphase and telophase. The APC/C remains active in degrading substrates to ensure that positive regulators of the cell cycle do not accumulate prematurely. At the G1/S transition FZR1 is phosphorylated, leading to its dissociation from the APC/C. Following DNA damage, it is required for the G2 DNA damage checkpoint: its dephosphorylation and reassociation with the APC/C leads to the ubiquitination of PLK1, preventing entry into mitosis. Acts as an adapter for APC/C to target the DNA-end resection factor RBBP8/CtIP for ubiquitination and subsequent proteasomal degradation. Through the regulation of RBBP8/CtIP protein turnover, may play a role in DNA damage response, favoring DNA double-strand repair through error-prone non-homologous end joining (NHEJ) over error-free, RBBP8-mediated homologous recombination (HR) (PubMed:25349192). [UniProtKB/Swiss-Prot Function]

**Protein Families:** Druggable Genome

**Protein Pathways:** Cell cycle, Progesterone-mediated oocyte maturation, Ubiquitin mediated proteolysis

### Product images:



Coomassie blue staining of purified FZR1 protein (Cat# [TP301413]). The protein was produced from HEK293T cells transfected with FZR1 cDNA clone (Cat# [RC201413]) using MegaTran 2.0 (Cat# [TT210002]).