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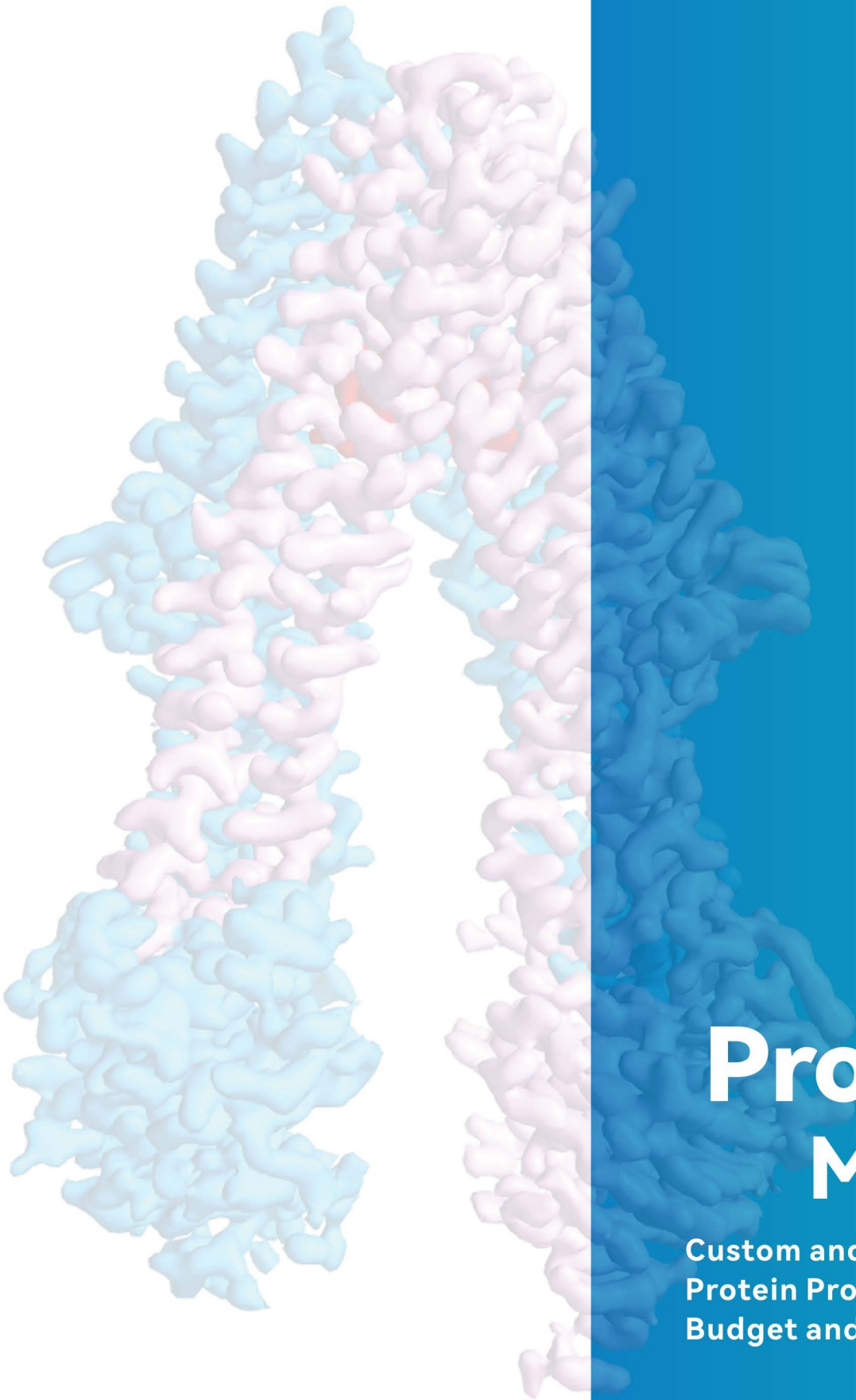
BIORTUS USA

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Tel: 1-781-287-8695 (USA)

2024.03

BIORTUS USA



Product Manual

Custom and Pre-Selected
Protein Products to fit your
Budget and Needs!

+620
Protein Products

+18
Assay Kits

51
CDKs

136
Kinases

39
Ras

101
E3 Ligases

53
Membrane
Proteins

18
DUBs
Assay Kits

36
E2s

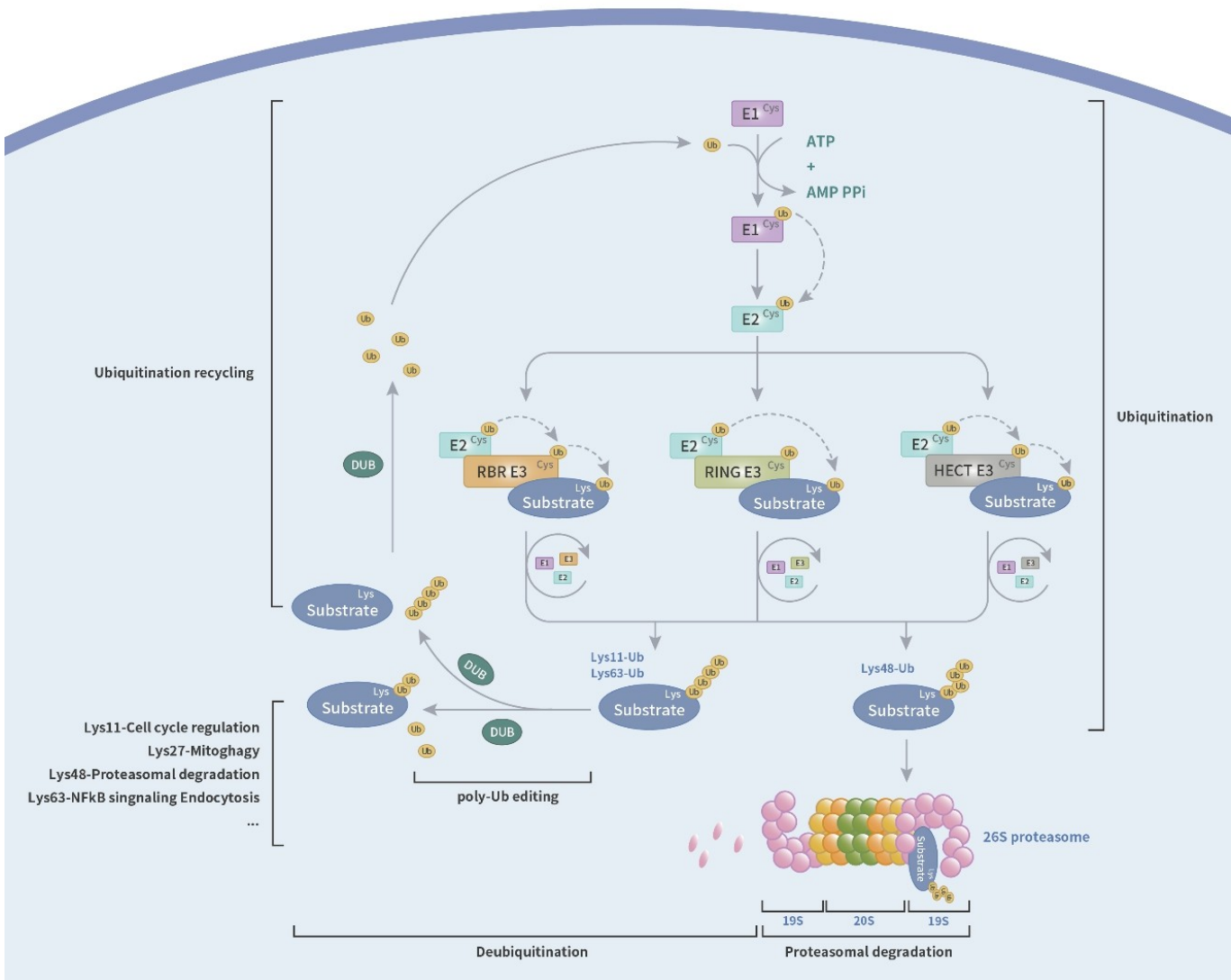
8
E1s

63
DUBs

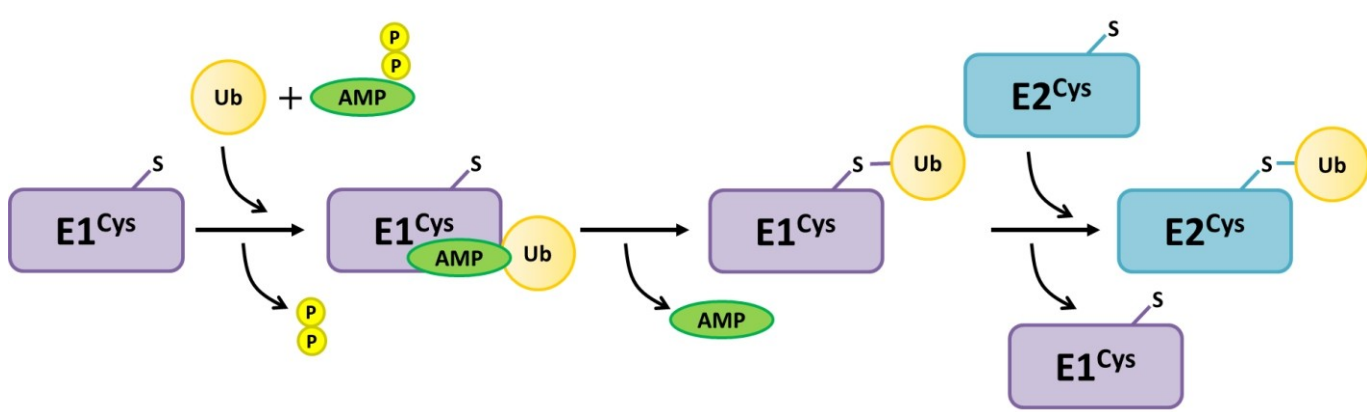
Ubiquitin-Proteasome System (UPS)

The Ubiquitin-Proteasome System (UPS) is a highly regulated and essential cellular pathway responsible for the degradation of intracellular proteins. Malfunctioning of the UPS has been implicated in numerous diseases, including cancer, neurodegenerative disorders, and autoimmune diseases.

The process of ubiquitination begins with the activation of ubiquitin by an E1 ligase, which forms a high-energy thioester bond between the C-terminal glycine residue of ubiquitin and a cysteine residue in the E1. Activated ubiquitin is then transferred to an E2 enzyme, which forms a similar thioester bond with ubiquitin. Finally, an E3 ligase facilitates the transfer of ubiquitin from E2 to the target protein. Once a protein is tagged with polyubiquitin chains, it is recognized and degraded by the proteasome, a large protein complex responsible for protein degradation or protein turnover. Conversely, the deubiquitinases (DUBs) an remove Ub or trim the Ub chains from target proteins, thereby directing subcellular localization of degradation towards endocytosis, etc. or rescue from proteosomal degradation.



E1 Ubiquitin-activating Enzymes

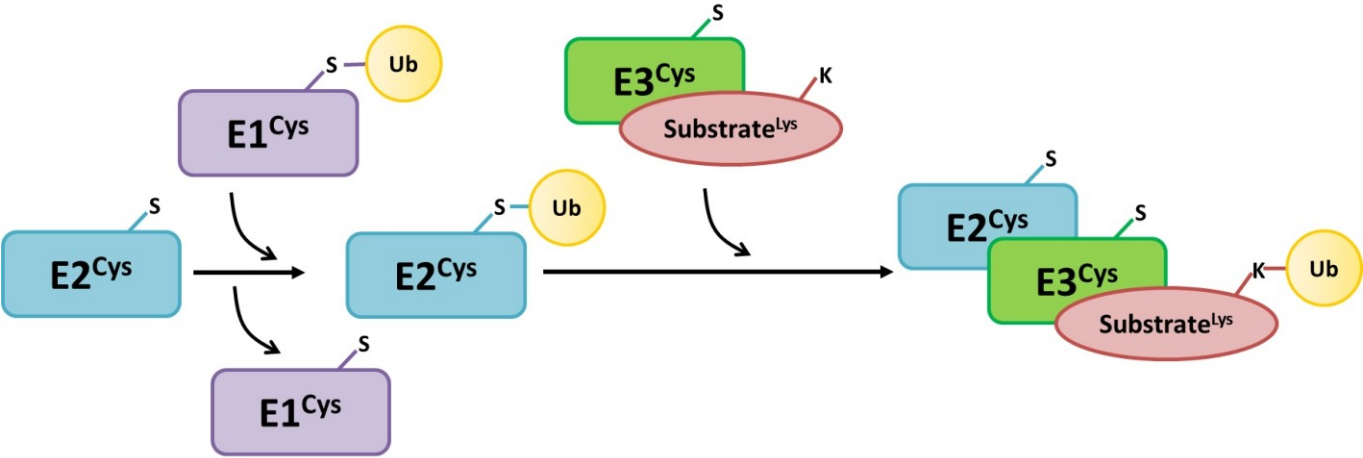


The E1 enzyme is responsible for the initial step in this pathway, in which it activates ubiquitin molecules by forming a high-energy thioester bond between the C-terminal glycine residue of ubiquitin and its cysteine residue on the E1 enzyme. Mutations in genes encoding E1 enzymes have been linked to various diseases, including cancer, neurodegenerative diseases, and developmental disorders; highlighting the importance of the ubiquitination pathway in maintaining cellular homeostasis.

Protein	Supplier No.	Species	Tag	Sequence
SAE1	BP30913-13A	Human	His/StrepII	M1-K346
SAE1/SAE2	BP30830-0C2	Human	No tag	M1-K346/M1-D640
SAE2	BP30829-13A	Human	His/StrepII	M1-D640
UBA3/APPBP1	BP31275-00A	Human	No tag	M1-S463/A2-L534
UBA5	BP12988-00A	Human	No tag	A2-M404
UBA6	BP12609-00A	Human	No tag	E2-D1052
UBA7	BP12968-00A	Human	No tag	D2-L1012
UBE1	BP16966-00A	Human	No tag	S2-R1058

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E2 Ubiquitin-conjugating Enzymes



The E2 enzyme receives ubiquitin from the E1 ubiquitin-activating enzyme and transfers it to the target protein with the help of an E3 ubiquitin ligase, which recognizes and binds to specific target proteins.

There are dozens of E2 enzymes in humans, ligase, responsible for recognizing and binding specific target proteins to coordinate the transfer of Ub from the E2. E2 enzymes generally have a conserved catalytic domain that binds to ubiquitin and a variable N-terminal domain that determines substrate specificity and binding to E3 ligases.

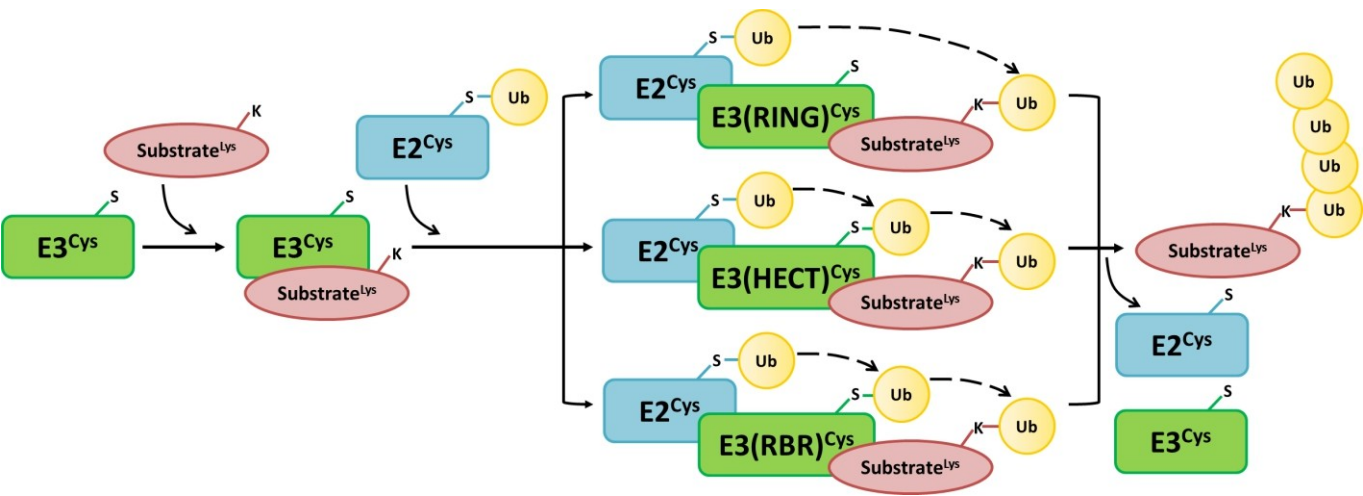
Protein	Supplier No.	Species	Tag	Sequence
UB2D1	BP13001-00A	Human	No tag	A2-M147
UB2D3	BP12991-00A	Human	No tag	A2-M147
UB2D4	BP12996-00A	Human	No tag	A2-M147
UB2E1	BP13027-00A	Human	No tag	S2-T193
UB2E2	BP13007-00A	Human	No tag	S2-T201
UB2E3	BP12990-00A	Human	No tag	S2-T207
UB2G1	BP12999-00A	Human	No tag	T2-E170
UB2G2	BP12602-00A	Human	No tag	A2-L165
UB2L3	BP13002-00A	Human	No tag	A2-D154
UB2L5	BP13032-00A	Human	No tag	A2-D154
UB2L6	BP13028-00A	Human	No tag	M2-S153
UB2Q1	BP14892-00A	Human	No tag	Q2-G422

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Protein	Supplier No.	Species	Tag	Sequence
UB2Q2	BP13005-00A	Human	No tag	S2-G375
UB2R1	BP13004-00A	Human	No tag	A2-S236
UB2R2	BP13029-00A	Human	No tag	A2-S238
UB2V1	BP13026-00A	Human	No tag	A2-N147
UB2V2	BP12600-00A	Human	No tag	A2-N145
UBC9	BP13031-00A	Human	No tag	S2-S158
UBCH7	BP13399-01A	Human	His	M1-D154
UBE2A	BP12993-00A	Human	No tag	S2-C152
UBE2B	BP13006-00A	Human	No tag	S2-S152
UBE2C	BP13033-00A	Human	No tag	A2-P179
UBE2F	BP13034-00A	Human	No tag	L2-R185
UBE2H	BP13000-00A	Human	No tag	S2-L183
UBE2J1	BP31273-00A	Human	No tag	M1-T282
UBE2K	BP13003-00A	Human	No tag	A2-N200
UBE2M	BP31249-13A	Human	His/StrepII	I2-K183
UBE2M	BP31249-00A	Mouse	No tag	I2-K183
UBE2N	BP12601-00A	Human	No tag	A2-I152
UBE2O	BP13022-00A	Human	No tag	A2-K1292
UBE2S	BP12998-00A	Human	No tag	N2-L222
UBE2T	BP13037-00A	Human	No tag	Q2-V197
UBE2W	BP12989-00A	Human	No tag	A2-C151
UBE2Z	BP12995-00A	Human	No tag	A2-V354
UEVLD	BP13025-00A	Human	No tag	E2-L471
UFC1	BP12992-00A	Human	No tag	A2-Q167

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E3 Ubiquitin-protein Ligases



E3 ligases are responsible for recognizing specific target proteins and catalyzing the transfer of ubiquitin molecules to these proteins, marking them for degradation or regulating their functions through non-proteolytic mechanisms. With over 600 E3 ligases in the human genome, they confer substrate specificity.

Protein	Supplier No.	Species	Tag	Sequence
ANKFY1	BP12622-00A	Human	No tag	A2-S1169
ARMC5	BP13152-00A	Human	No tag	A2-A935
BACH2	BP13997-00A	Human	No tag	S2-T841
BIRC7	BP09064-00A	Human	No tag	G2-S298
BRAP	BP08867-00A	Human	No tag	S2-K592
BRCA1	BP05302-00A	Human	No Tag	V1646-P1859end
CBLB	BP14091-00A	Human	No Tag	A2-L982end
CBLB	BP24265-02A	Human	GST	A39-F426
CBLB	BP24265-00A	Human	No Tag	A39-F426
CBLC	BP14092-00A	Human	No Tag	A2-A474end
CHFR	BP08872-00A	Human	No tag	E2-N664
Cul4a/RBX1	BP19675-00A	Human	No Tag	A2-A759end
CUL5	BP13911-00A	Human	No tag	A2-A780

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Protein	Supplier No.	Species	Tag	Sequence
DCAF10	BP13157-13D	Human	His/Strep	F2-F559
DCAF11/DDB1	BP13158-13D	Human	His/StrepII	G2-Q546/M1-H1140
DCAF12/DDB1	BP12524-13D	Human	His/StrepII	A2-S453/M1-H1140
DCAF13	BP13159-00A	Human	No tag	K2-K445
DCAF13	BP13159-13A	Human	His/Strep	K2-K445
DCAF16/DDB1	BP7872D-01A	Human	His	G2-L216/M1-H1140
DCAF16/DDB1	BP7872D-00A	Human	No tag	G2-L216/M1-H1140
DCAF2/DDB1	BP27063-13D	Human	His/StrepII	L2-L730/M1-H1140
DCAF4	BP13041-13A	Human	His/Strep	N2-S495
DCAF7	BP13155-00A	Human	No tag	S2-V342
DCAF7	BP13155-13A	Human	His/StrepII	S2-V342
DCAF8/DDB1	BP13156-13D	Human	His/StrepII	S2-S597/M1-H1140
DCAF9/DDB1	BP27064-13D	Human	His/StrepII	A2-S677/M1-H1140
DTX3	BP08171-00A	Human	No tag	S2-D347
DTX3L	BP08486-00A	Human	No tag	A2-E740
HACE1	BP08192-01A	Human	His	E2-A909
HACE1	BP08192-00A	Human	No tag	E2-A909
HERC2	BP08853-00A	Human	No tag	S3951-P4321
HLTF	BP08858-00A	Human	No tag	V58-A174
HLTF	BP08858-01A	Human	His	V58-A174
IPP	BP14013-00A	Human	No tag	A2-L584
KBTBD11	BP13775-00A	Human	No Tag	2-623end
KBTBD2	BP13958-00A	Human	No tag	S2-V623
KBTBD6	BP13978-00A	Human	No tag	Q2-Q674
KBTBD7	BP13979-00A	Human	No tag	Q2-L684
KBTBD8	BP13980-00A	Human	No tag	A2-L601
KLHL14	BP13811-00A	Human	No Tag	S2-K628end
KLHL3	BP13783-00A	Human	No tag	E2-L587
KLHL39	BP14014-00A	Human	No tag	I2-F642
KLHL42	BP12657-00A	Human	No tag	S2-T505

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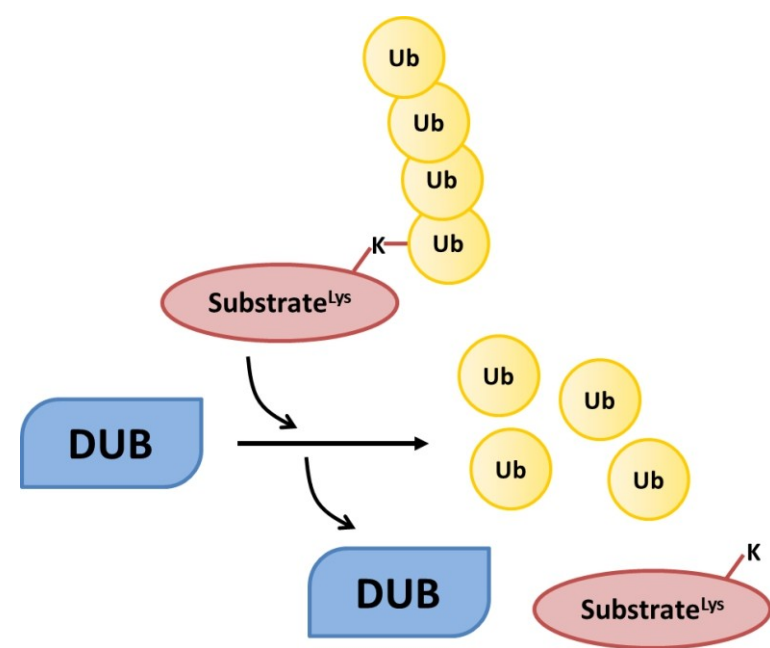
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KMT2C	BP11712-00A	Human	No tag	V1055-N1144
LONRF2	BP08907-00A	Human	No tag	S2-N754
MDM2	BP07095-00A	Human	No Tag	S17-N111
MDM2	BP07095-01A	Human	His	S17-N111
MDM4	BP08537-00A	Human	No tag	T2-A490
Mms2	BP05684-00A	Human	No Tag	M1-N145end
NEDD4L	BP08926-00A	Human	No tag	A2-D975
NOSIP	BP08195-00A	Human	No tag	T2-A301
NSMCE1	BP08948-00A	Human	No Tag	Q2-H266end
PELI1	BP08969-00A	Human	No Tag	F2-D418end
PELI2	BP08196-01A	Human	His	F2-D420
PELI2	BP08196-00A	Human	No tag	F2-D420
PPIL2	BP08543-01A	Human	His	G2-W520
PPIL2	BP08543-00A	Human	No tag	G2-W520
RBCK1	BP08967-00A	Human	No tag	D2-H510
RFPL3	BP08487-00A	Human	No tag	K2-K317
RNF11	BP08166-00A	Human	No tag	G2-N154
RNF113A	BP08933-00A	Human	No tag	A2-T343
RNF114	BP12397-00A	Human	No tag	A2-Q228
RNF14	BP08972-00A	Human	No tag	S2-D474
RNF141	BP08168-01A	Human	His	G2-P230
RNF141	BP08168-00A	Human	No tag	G2-P230
RNF141	BP08168-00B	Human	Biotinylated,No tag	G2-P230
RNF181	BP08198-01A	Human	His	A2-T153
RNF181	BP08198-00A	Human	No tag	A2-T153
RNF4	BP07990-00A	Human	No tag	S2-I190
RNF4	BP11714-02A	Human	GST	G120-I190
RNF4	BP11714-00A	Human	No tag	G120-I190
RNF4	BP11714-00B	Human	Biotinylated	G120-I190
RNF8	BP08255-00A	Human	No tag	G2-F485

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Protein	Supplier No.	Species	Tag	Sequence
SMURF2	BP08513-00A	Human	No tag	S2-E748
STUB1	BP08514-01A	Human	His	K2-Y303end
STUB1	BP08514-00A	Human	No Tag	K2-Y303end
survivin(BIRC5)	BP09066-00A	Human	No tag	M1-D142
TCEB3	BP13908-00A	Human	No tag	G2-D242
TRIM2	BP08272-00A	Human	No tag	A2-Q744
TRIM2	BP13663-00A	Human	No Tag	A2-Q744end
TRIM3	BP08276-00A	Human	No tag	A2-Q744
TRIM38	BP08283-00A	Human	No tag	A2-D465
TRIM44	BP13169-00A	Human	No tag	A2-T344
TRIM54	BP13665-00A	Human	No tag	N2-P358
TRIM69	BP08524-00A	Human	No tag	E2-Q500
TRIM72	BP08308-01A	Human	His	S2-A477
Ub	BP13400-01A	Human	His	M1-G76
Ub	BP13400-00A	Human	No Tag	M1-G76
UHRF2	BP08321-01A	Human	His	W2-R802
UHRF2	BP08321-00A	Human	No tag	W2-R802
VHL/EloB/EloC	BP18021-0TB	Human	Biotinylated,No tag	M54-D213/M1-K104/ M17-C112
WHSC1	BP13935-00A	Human	No tag	Q2-K568
WWP1	BP08203-00A	Human	No Tag	A2-E922end
WWP2	BP08523-00B	Human	Biotinylated	A2-E870end
WWP2	BP08523-01A	Human	His	A2-E870end
WWP2	BP08523-00A	Human	No tag	A2-E870
XIAP	BP07931-02A	Human	GST	Y120-P260
XIAP	BP07936-00A	Human	No tag	S241-T356
ZBTB7B	BP12819-00A	Human	No tag	G2-S539
ZFAND3	BP13171-00A	Human	No tag	G2-S227
ZFAND5	BP13172-00A	Human	No tag	A2-I213

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Deubiquitylating Enzymes (DUBs)



Deubiquitinases (DUBs) are specialized proteases that remove ubiquitin from substrates or cleave ubiquitin chains to regulate ubiquitylation. Therefore, DUBs have key roles in the underlying cellular mechanisms responsible for pathologies such as autoimmune disorders, chronic inflammation, oncology and neurodegeneration.

There are nearly a hundred known DUBs that can be classified into seven families based on sequence and domain conservation: ubiquitin-specific proteases (USPs), ovarian tumor proteases (OTUs), ubiquitin carboxy-terminal hydrolases (UCHs), the Machado–Joseph disease proteases (MJDs), and two more recently identified families, the motif interacting with ubiquitin-containing novel DUB family (MINDYs), JAB1, MPN, MOV34 family (JAMMs) and zinc finger containing ubiquitin peptidase 1 family (ZUP1). Some DUBs and related enzymes are involved in editing or processing UBLs and their conjugates; prime examples of these being the SENP (sentrin/SUMO- specific protease) proteins that process SUMO precursors and SUMO conjugates.

JAMMs Family

Protein	Supplier No.	Species	Tag	Sequence
AMSH	BP12773-00A	Human	No tag	S2-R424 end
AMSH LP	BP12389-01A	Human	His	D2-R436
COPS5	BP14572-02A	Human	GST	A2-T257
PSMD7	BP12423-01A	Human	His	P2-K324 end

MINDYs Family

Protein	Supplier No.	Species	Tag	Sequence
MINDY2	BP17853-02A	Human	GST	S241-V504

MJD Family

Protein	Supplier No.	Species	Tag	Sequence
ATXN3	BP12836-01A	Human	His	E2-K361 end
ATXN3L	BP12432-04A	Human	Flag	D2-K355 end
JOSD1	BP17620-00A	Human	No tag	S2-V202 end
JOSD2	BP12774-01A	Human	His	S2-D188 end

OTUs Family

Protein	Supplier No.	Species	Tag	Sequence
OTUB1	BP12800-04A	Human	Flag	A25-K271 end
OTUB2	BP10223-01A	Human	His	F6-A230
OTUD1	BP13015-01A	Human	His	Q2-S481 end
OTUD2	BP12849-01A	Human	His	F2-V348 end
OTUD5	BP12777-14A	Human	His/Flag	G172-G351
OTUD6A	BP12369-00A	Human	No tag	M1-L288 end
OTUD6B	BP12776-04A	Human	Flag	M1-L288 end
OTUD7A (Cezanne-2)	BP12801-04A	Human	Flag	V2-R509
OTUD7B (Cezanne-1)	BP07144-00A	Human	No tag	E129-S438
VCPIP1	BP12434-01A	Human	His	M1-S1222 end
ZRANB1 (TRABID)	BP12433-01A	Human	His	M1-E708 end
TNFAIP3 (A20)	BP15478-21A	Human	GST/His	A2-E366
OTULIN	BP30374-12A	Human	His/GST	M1-L352 end

SENPs Family

Protein	Supplier No.	Species	Tag	Sequence
SEN2P	BP12847-00A	Human	No tag	D363-L589 end
SEN3P	BP12799-00A	Human	No tag	E301-V574 end
SEN5P	BP15744-02A	Human	GST	D536-D755 end
SEN6P	BP15064-02A	Human	GST	K628-D1112
SEN7P	BP15746-02A	Human	GST	T640-P984
SEN8P	BP12769-00A	Human	No tag	D2-K212 end

UCHs Family

Protein	Supplier No.	Species	Tag	Sequence
BAP1	BP25843-14A	Human	His/Flag	N2-Q729 end
UCHL1	BP12839-01A	Human	His	Q2-A223 end
UCHL3	BP12838-00A	Human	No tag	E2-A230 end
UCHL5	BP12837-01A	Human	His	T2-K329 end

USPs Family

Protein	Supplier No.	Species	Tag	Sequence
USP2	BP01614-00A	Human	No tag	N259-M605 end
USP3	BP15036-02A	Human	GST	E2-L520
USP5	BP12846-00A	Human	No tag	A2-S858
USP5	BP12846-00A	Human	No tag	A2-S858
USP6	BP12539-02A	Human	GST	K529-Q1406 end
USP7	BP05990-01A	Human	His	K208-E560
USP7	BP05990-00A	Human	No tag	K208-E560
USP8	BP28385-00A	Human	No tag	P734-G1110
USP9X	BP12796-02A	Human	GST	K1554-N1995

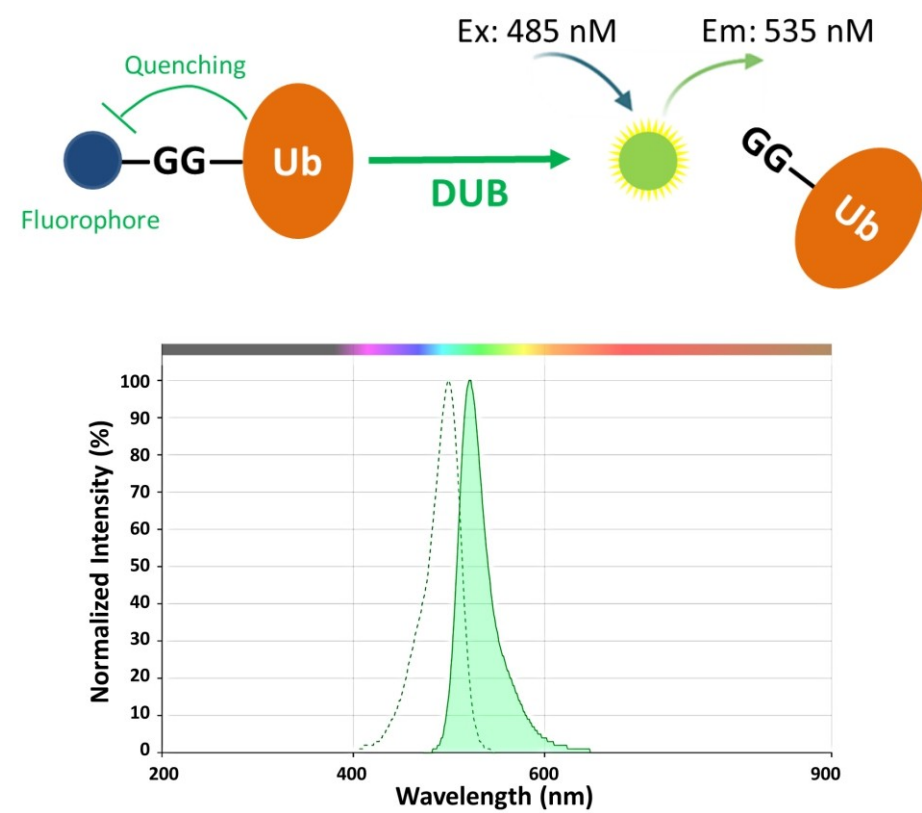
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Protein	Supplier No.	Species	Tag	Sequence
USP9X	BP12796-00A	Human	No tag	K1554-N1995
USP9X	BP12796-02A	Human	GST	K1554-N1995
USP9Y	BP12797-00A	Human	No tag	R1553-S1972
USP10	BP28010-00A	Human	No tag	A2-L798 end
USP13	BP13480-00A	Human	No tag	Q2-S863 end
USP14	BP07110-01A	Human	His	Q96-Q494
USP15	BP13992-02A	Human	GST	M1-N981
USP16	BP12440-00A	Human	No tag	G2-L823
USP16	BP12440-01A	Human	His	G2-L823
USP20	BP12442-02A	Human	GST	K120-V914 end
USP22	BP12418-01A	Human	His	V2-E525 end
USP28	BP12416-01A	Human	His	T2-K1077 end
USP29	BP27978-00A	Human	No tag	Q285-N885
USP30	BP12415-01A	Human	His	T57-E517 end
USP32	BP13990-00A	Human	No tag	V530-Q1604 end
USP37	BP12420-00A	Human	No tag	S2-L979
USP40	BP12438-14A	Human	His/Flag	F2-R1235
USP44	BP14378-02A	Human	GST	M1-S712 end
USP46	BP14676-12A	Human	His/GST	M1-E366
USP48	BP12443-14A	Human	His/Flag	A2-H1035 end
USP51	BP14573-14A	Human	His/Flag	R363-Q706
USP52	BP27847-12A	Human	His/GST	M486-R924

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DUBs Inhibitor Screening Assay Kit

Ubiquitin derivatives conjugated with various fluorophores have been reported as substrates for biochemical DUB assays. Ub-Rho110 is an ubiquitin substrate whose C-terminal derivatives are Rho110. While rhodamine is in the Ub-Rho110 moiety, it is di-substituted thereby quenching the intrinsic fluorescence. However, mono-substituted rhodamine, which exhibits intense fluorescence, is released by the DUBs, thus allowing the real-time monitoring of the sensitivity or activity of DUBs by monitoring the 535 nm emission wavelengths after using 485 nm excitation. With these longer wavelengths, the artifacts from auto-fluorescence are reduced. The increase in fluorescence is proportional to the DUB activity.



◆ Features of DUBs Inhibitor Screening Assay Kit

Versatile:

Applicable for multiple DUBs proteins

Convenient:

Non-radioactive

Quantitative:

This kit has a low background signal. The emission wavelength of the reactive generated Rho110 is close to the red region, and the auto-fluorescence of inhibitor (located in the blue-green region of shorter wavelengths) exhibits less interference at this wavelength.

Amenable to High-throughput Analysis:

The assay can be performed in standard microplate reader.

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Supplier No.	Assay Kits	Size
BKDU001-096	USP20 Inhibitor Screening Assay Kit	96 tests
BKDU002-096	USP5 Inhibitor Screening Assay Kit	96 tests
BKDU003-096	USP8 Inhibitor Screening Assay Kit	96 tests
BKDU004-096	USP15 Inhibitor Screening Assay Kit	96 tests
BKDU005-096	USP28 Inhibitor Screening Assay Kit	96 tests
BKDU006-096	ZRANB1 Inhibitor Screening Assay Kit	96 tests
BKDU007-096	Cezanne1 Inhibitor Screening Assay Kit	96 tests
BKDU008-096	USP3 Inhibitor Screening Assay Kit	96 tests
BKDU009-096	USP25 Inhibitor Screening Assay Kit	96 tests
BKDU010-096	USP48 Inhibitor Screening Assay Kit	96 tests
BKDU011-096	USP51 Inhibitor Screening Assay Kit	96 tests
BKDU012-096	BAP1 Inhibitor Screening Assay Kit	96 tests
BKDU013-096	USP30 Inhibitor Screening Assay Kit	96 tests
BKDU014-096	USP7 Inhibitor Screening Assay Kit	96 tests
BKDU015-096	OTUD1 Inhibitor Screening Assay Kit	96 tests
BKDU017-096	USP21 Inhibitor Screening Assay Kit	96 tests
BKDU018-096	USP40 Inhibitor Screening Assay Kit	96 tests
BKDU019-096	USP2 Inhibitor Screening Assay Kit	96 tests

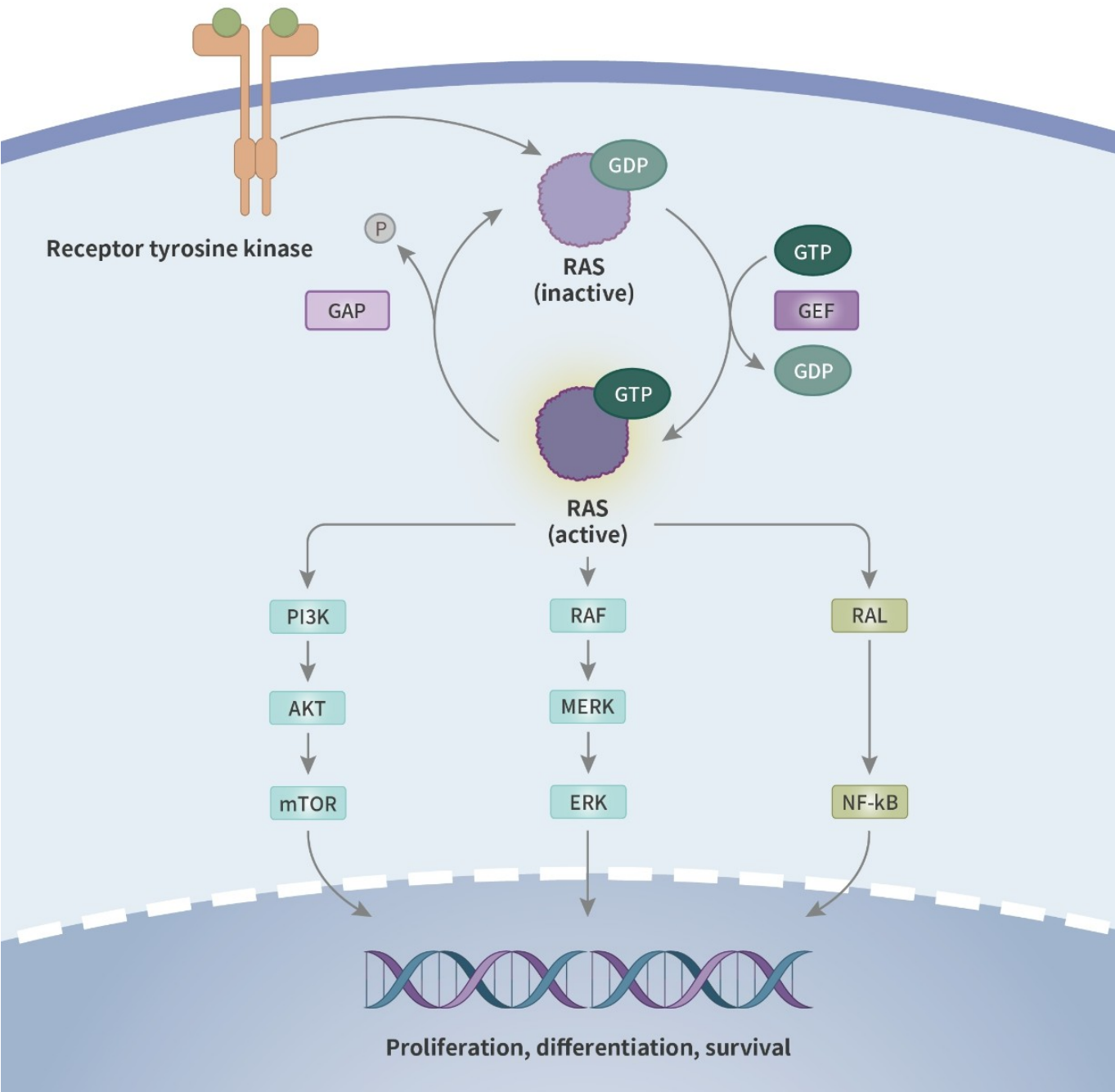
◆ Kits Components

- 1 vial Reaction buffer (10×)
- 1 vial Ub-Rho110 (100×)
- 1 vial DUB protein
- 1 vial 50 mg of DTT
- 1 × 96-well black microliter plate



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Ras Family



Ras protein family is a group of small GTP-binding proteins that play a critical role in signal transduction pathways. This family of GTPases includes several members, including H-Ras, K-Ras, N-Ras, and other less-studied isoforms like R-Ras, M-Ras, and Rap proteins.

Ras proteins act as molecular switches, cycling between an inactive GDP-bound state and an active GTP-bound state. Upon activation, Ras proteins bind to downstream effector proteins, such as RAF, PI3K, and RalGDS, initiating a signaling cascade that ultimately leads to changes in gene expression and cellular behavior.

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Protein	Supplier No.	Species	Tag	Sequence
HRas, GMPPNP form	BP31082-0DB	Human	Biotinylated, No tag	M1-L188
NRas, GDP form	BP14940-2DA	Human	GST	T2-K169, Q61R
NRas, GDP form	BP15338-2DA	Human	GST	T2-K169
NRas, GDP form	BP24297-0DB	Human	Biotinylated, No tag	M1-N172, G12D
NRas, GMPPNP form	BP24297-0MB	Human	Biotinylated, No tag	M1-N172, G12D
NRas, GMPPNP form	BP24298-0MB	Human	Biotinylated, No tag	M1-N172, G13D
NRas, GDP form	BP24298-0DB	Human	Biotinylated, No tag	M1-N172, G13D
NRas, GDP form	BP15021-2DA	Human	GST	T2-K169, Q61L
NRas, GDP form	BP14941-2D0	Human	GST	T2-K169, Q61H
NRas, GDP form	BP15298-2DA	Human	GST	T2-K169, Q61R
KRas4B, GDP form	BP11165-0D0	Human	No tag	M1-K169, G12V
KRas4B, GDP form	BP11365-0D0	Human	No tag	M1-K169, G13D
KRas4B, GDP form	BP14791-12A	Human	His/GST	T2-M188, G12V
KRas4B, GDP form	BP15534-2DA	Human	GST	T2-K169
KRas4B, GDP form	BP18374-2DA	Human	GST	T2-K169, G12A
KRas4B, GPPCP form	BP11162-0C0	Human	No tag	M1-K169
KRas4B, GDP form	BP11162-0D0	Human	No tag	M1-K169
KRas4B, GDP form	BP18375-2DA	Human	GST	T2-K169, G12R
KRas4B, GDP form	BP19073-0DB	Human	Biotinylated, No tag	T2-M188, G12D
KRas4B, GMPPNP form	BP19073-0MB	Human	Biotinylated, No tag	T2-M188, G12D
KRas4B, GDP form	BP14942-2DA	Human	GST	T2-K169, G12S
KRas4B, GDP form	BP14943-2D0	Human	GST	T2-K169, G12D
KRas4B, GDP form	BP14944-2DA	Human	GST	T2-K169, G13D
KRas4B, GDP form	BP14987-2DA	Human	GST	T2-K169, G12C
KRas4B, GMPPNP form	BP30205-0MB	Human	Biotinylated, No tag	T2-M188, G12R
KRas4B, GMPPNP form	BP32864-2M0	Human	GST	T2-K169, Q61K
KRas4B, GDP form	BP32864-2D0	Human	GST	T2-K169, Q61K
KRas4B, GDP form	BP19203-0DB	Human	Biotinylated, No tag	T2-M188

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Protein	Supplier No.	Species	Tag	Sequence
KRas4B, GMPPNP form	BP19203-0MB	Human	Biotinylated, No tag	T2-M188
KRas4B, GDP form	BP21145-0DB	Human	Biotinylated, No tag	M1-M188, G12V
KRas4B, GMPPNP form	BP21145-0MB	Human	Biotinylated, No tag	M1-M188, G12V
KRas4B, GMPPNP form	BP21281-0MB	Human	Biotinylated, No tag	M1-M188, G13D
KRas4B, GDP form	BP21282-0DB	Human	Biotinylated, No tag	M1-M188, G12C
KRas4B, GMPPNP form	BP21282-0MB	Human	Biotinylated, No tag	M1-M188, G12C
KRas4B, GMPPNP form	BP21283-0MB	Human	Biotinylated, No tag	M1-M188, Q61K
KRas4B, GDP form	BP21284-0DB	Human	Biotinylated, No tag	M1-M188, Q61R
KRas4B, GMPPNP form	BP21284-0MB	Human	Biotinylated, No tag	M1-M188, Q61R
KRas4B, GDP form	BP28422-1DB	Human	Biotinylated, His	M1-K169, G12S
KRas4B, GDP form	BP28489-1DB	Human	Biotinylated, His	M1-K169
KRas4B, GMPPNP form	BP21282-0MB	Human	Biotinylated, No tag	M1-M188, G12C

- Other forms, like GDP/GTP/GMPPMP/GPPCP forms, can be provided by Biortus USA.

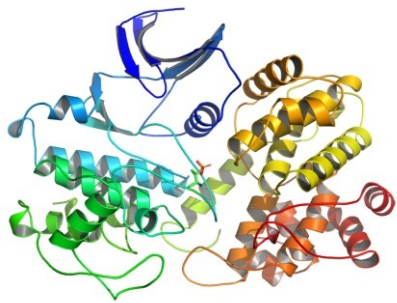
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Cyclin Dependent Kinases (CDKs)

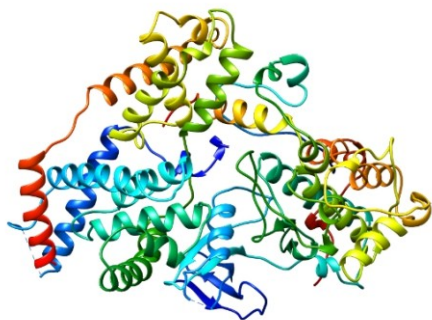
CDKs are members of the serine/threonine protein kinase family, and can be classified into three categories based on their specific functions:

- 1) CDKs that regulate the cell cycle, such as CDK1, 2, 4, 6, and 7.
- 2) CDKs that regulate RNA transcription, such as CDK7, 8, 9, 11, 12, and 13.
- 3) Atypical CDKs, such as CDK5, 14, 15, 16, 17, and 18.

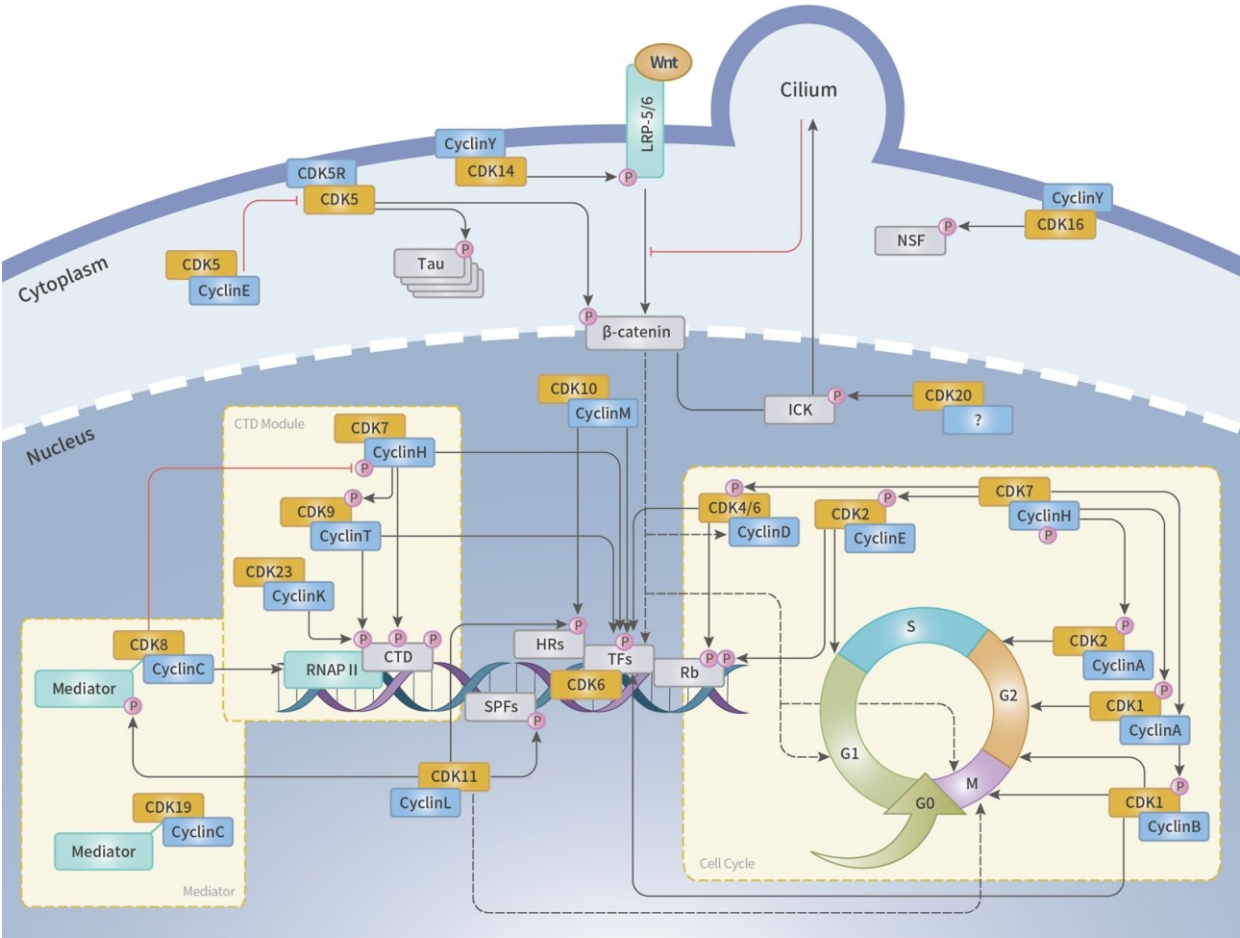
Because CDK activity is necessary for cell division, and often enhanced in tumor cells, CDKs have long been considered a promising target for the development of anti-cancer and other proliferation-related disease drugs.



CDK3/CyclinE1 X-Ray structure
from Biortus (First structure in the world)
PDB: 7XQK 2.25Å



CDK7/CyclinH/MAT1 Cryo-EM structure
from Biortus (First structure in the world)
2.8Å



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CDK/Cyclin Complexes

Protein	Supplier No.	Species	Tag	Sequence
CDK1/Cyclin E1	BP468E1-21A	Human	GST/His	M1-M297/M1-A410
CDK1/Cyclin E2	BP468E2-24A	Human	GST/Flag/His	M1-M297/S2-H404
CDK1/Cyclin B1	BP468B1-24A	Human	GST/Flag/His	M1-M297/N165-V433
CDK1/Cyclin A2	BP468A2-00A	Human	No tag	M1-M297/E174-L432
CDK1/Cyclin A2	BP468A2-21A	Human	GST/His	M1-M297/E174-L432
CDK2/Cyclin E2	BP469E2-24A	Human	GST/Flag/His	M1-L298/S2-H404
CDK2/Cyclin E1	BP469E1-21A	Human	No tag	M1-L298/M1-A410
CDK2/Cyclin E1	BP469E1-04A	Human	GST/His	M1-L298/M1-E410
CDK2/Cyclin D1	BP469D1-24A	Human	GST/Flag/His	M1-L298/M1-I295
CDK2/Cyclin A2	BP469A2-21A	Human	GST/His	M1-L298/E174-L432
CDK2/Cyclin O	BP0468O-21A	Human	GST/His/Flag	M1-L298/V2-S349
CDK3/Cyclin E1	BP470E1-24A	Human	GST/Flag/His	M1-H305/M1-A410
CDK3/Cyclin E2	BP470E2-24A	Human	GST/Flag/His	M1-H305/S2-H404
CDK4/Cyclin D2	BP471D2-24A	Human	GST/Flag/His	M1-E303/E2-L289
CDK4/Cyclin D3	BP471D3-21A	Human	GST/His	M1-E303/M1-L292
CDK5/p25	BP486P2-21A	Human	His/GST/Flag	M1-P292/A99-R307
CDK5/p35	BP486P3-21A	Human	GST/His/Flag	M1-P292/G2-R307
CDK6/Cyclin D1	BP498D1-24A	Human	GST/Flag/His	M1-A326/M1-I295
CDK6/Cyclin D2	BP498D2-24A	Human	GST/Flag/His	M1-A326/E2-L289
CDK6/Cyclin D3	BP498D3-21A	Human	GST/His	M1-A326/M1-L292
CDK7/Cyclin H/MAT1	BP487HM-21A	Human	GST/His/Flag	M1-F346/M1-L323/ M1-S309
CDK8/Cyclin C/MED12	BP472CM-24A	Human	GST/Flag/His	M1-Y464/M1-S283/ M1-D100
CDK9/Cyclin T1	BP488T1-21A	Human	GST/His	M1-F372/M1-R259
CDK9/Cyclin T2	BP488T2-24A	Human	GST/Flag/His	M1-F372/A2-S663
CDK9/Cyclin K	BP0488K-24A	Human	GST/Flag	M1-F372/M1-S300
CDK12/Cyclin K	BP1642K-24A	Human	GST/Flag	Q696-S1082/M1-S300
CDK12/Cyclin T1	BP1642T-24A	Human	GST/Flag/His	Q696-S1082/M1-R259
CDK13/Cyclin T1	BP1646T-24A	Human	GST/Flag/His	Q673-S1054/M1-R259

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Protein	Supplier No.	Species	Tag	Sequence
CDK13/Cyclin K	BP1646K-24A	Human	GST/Flag	Q673-S1054/M1-S300
CDK15/Cyclin Y	BP0688Y-24A	Human	GST/Flag	M1-W435/M1-S341
CDK16/Cyclin Y	BP1751Y-24A	Human	GST/Flag	M1-F496/M1-S341
CDK17/Cyclin Y	BP0702Y-24A	Human	GST/Flag	M1-F523/M1-S341
CDK18/Cyclin Y	BP1752Y-24A	Human	GST/Flag	M1-F474/M1-S341
CDK19/Cyclin C/ MED12	BP473CM-24A	Human	GST/Flag/His	M1-Y502/M1-S283/ M1-D100

CDKs

Protein	Supplier No.	Species	Tag	Sequence
CDK1	BP15341-00A	Human	No tag	M1-M297
CDK2	BP25841-01A	Human	His	M1-L298
CDK3	BP00470-02A	Human	GST	M1-H305
CDK4	BP25839-01A	Human	His	M1-E303
CDK5	BP00486-02A	Human	GST	M1-P292
CDK6	BP25840-01A	Human	His	M1-A326
CDK7	BP00487-02A	Human	GST	M1-F346
CDK8	BP01080-02A	Human	GST	M1-Y403
CDK9	BP00488-02A	Human	GST	M1-F372
CDK11p58	BP16062-00A	Human	No tag	M357-F795

Cyclins

Protein	Supplier No.	Species	Tag	Sequence
Cyclin A2	BP33022-00A	Human	No tag	E174-L432
Cyclin B1	BP15147-00A	Human	No tag	N165-V433
Cyclin E1	BP15652-00A	Human	No tag	M1-A410
Cyclin E1	BP27340-01A	Human	His	I96-A378
Cyclin H	BP01158-00A	Human	No tag	M1-L323
Cyclin K	BP01150-00A	Human	No tag	M1-S300
Cyclin T1	BP01136-00A	Human	No tag	M1-R259

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Kinases

Kinases are a class of enzymes that catalyze the transfer of a phosphate group from ATP to specific molecules. This process, called phosphorylation, is an important step in cell signaling pathways. Kinases can regulate the activity, localization, and interaction of target molecules through phosphorylation modifications, thereby affecting cellular physiological and pathological processes.

Hundreds of kinases have been discovered, which can be divided into many families, each with common features and functions. For example, protein kinases are one of the most common kinase families, which catalyze the phosphorylation of proteins. There are also tyrosine kinases, serine/threonine kinases, and other families. These different kinase families play different roles in cell signaling pathways.

AGC Kinases

Protein	Supplier No.	Species	Tag	Sequence
AKT1	BP09961-02A	Human	GST	S2-A480
AKT2	BP09930-02A	Human	GST	N2-E481
AKT3	BP10273-02A	Human	GST	S2-E479
MRCKα	BP10469-02A	Human	GST	S2-Q473
PDPK1	BP05927-01A	Human	His	M51-A360
PKCβ1	BP10483-02A	Human	GST	A2-V671
PKCβ2	BP11159-12A	Human	His/GST	A2-S673
PknB	BP06354-01A	Mycobacterium tuberculosis	His	M1-R331
PknB	BP06354-00A		No tag	M1-R331
PKNg	BP12367-00A	Human	No tag	A2-F750
PRKACA (PKACα)	BP10480-02A	Human	GST	G2-F351
PRKCD (PKCδ)	BP10485-02A	Human	GST	A2-D676
PRKCE (PKCε)	BP10486-02A	Human	GST	V2-P737
PRKCG (PKCγ)	BP10484-02A	Human	GST	A2-M697
PRKCH (PKCη)	BP10487-02A	Human	GST	S2-P683
PRKCI (PKCι)	BP10488-02A	Human	GST	P2-V596
PRKCZ (PKCζ)	BP10481-02A	Human	GST	P2-V592
PRKG1	BP07117-02A	Human	GST	M1-F686
PRKG2	BP07098-02A	Human	GST	M1-F762

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Protein	Supplier No.	Species	Tag	Sequence
RSK1	BP05970-00A	Human	No tag	Q33-T353
RSK2	BP06295-00A	Human	No tag	Q400-L740
RSK3	BP06237-02A	Human	GST	M1-L733
RSK4	BP06420-02A	Human	GST	M1-L745
SGK3	BP09927-02A	Human	GST	Q2-L496

Atypical Kinases

Protein	Supplier No.	Species	Tag	Sequence
BRD4	BP28523-00B	Human	No tag,biotinylated	E49-E460
BRD4	BP28523-00A	Human	No tag	E49-E460
BRD4	BP06978-00A	Human	No tag	S42-E168
BRD4	BP04100-01A	Human	His	S42-E168
DCK	BP14555-00A	Human	No tag	M1-L260

CAMK Kinases

Protein	Supplier No.	Species	Tag	Sequence
BRSK1	BP09996-02A	Human	GST	S2-P778
CAMK2α	BP10498-02A	Human	GST	A2-H478
CaMK4	BP10297-02A	Human	GST	L2-Y473
CHEK2	BP10504-02A	Human	GST	S2-L543
CHK1 (CHEK1)	BP10269-02A	Human	GST	A2-T476
DAPK3	BP10267-02A	Human	GST	S2-R454
MAPKAPK2	BP06297-00A	Human	No tag	H47-R364, ΔH217-P237, S216G
MAPKAPK3	BP09989-02A	Human	GST	D2-Q382
MAPKAPK5	BP09958-02A	Human	GST	S2-Q473
MARK4	BP05640-00A	Human	No tag	N44-K370
MKNK2	BP06036-00A	Human	No tag	T72-R385
MKNK2	BP06036-01A	Human	His	T72-R385

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Protein	Supplier No.	Species	Tag	Sequence
PASK	BP06422-02A	Human	GST	S949-S1323
PGK1	BP05820-00A	Human	No tag	S2-I417
PIM1	BP05976-00A	Human	No tag	A14-K313
PIM2	BP06028-00A	Human	No tag	M1-P311
PIM3	BP10426-02A	Human	GST	L2-L326
PRKD2	BP11184-12A	Human	His/GST	A2-L878
PRKD3 (PKD3)	BP10489-02A	Human	GST	S2-P890
TRIB2	BP11148-12A	Human	His/GST	N2-N343

Ck1 Kinases

Protein	Supplier No.	Species	Tag	Sequence
CSNK2A1	BP06835-01A	Human	His	M1-Q391 end
CSNK2A1	BP28230-01A	Human	His	V5-S337
CSNK2A1	BP28229-01A	Human	His	M1-K329
CSNK1G3 (CK1γ3)	BP10507-02A	Human	GST	E2-K447
CSNK1G2 (CK1γ2)	BP10501-02A	Human	GST	D2-K415
CSNK1G1 (CK1γ1)	BP10506-02A	Human	GST	D2-K422
CSNK1D (CK1d)	BP10505-02A	Human	GST	E2-R415
CSNK1A1 (Ck1α)	BP10508-02A	Human	GST	A2-F337
VRK3	BP11154-12A	Human	His/GST	I2-P474

CMGC Kinases

Protein	Supplier No.	Species	Tag	Sequence
DYRK2	BP04476-02A	Human	GST	L2-S601
DYRK2	BP04476-02A	Human	GST	L2-S601
DYRK4	BP10272-02A	Human	GST	P2-V520

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Protein	Supplier No.	Species	Tag	Sequence
DYRK4	BP10272-02A	Human	GST	P2-V520
ERK2	BP02112-41A	Human	Flag/His	M1-S360
ERK3	BP05985-00A	Human	No tag	M9-I327
GSK3A	BP10454-02A	Human	GST	S2-S483
GSK3A	BP10454-02A	Human	GST	S2-S483
GSK3B	BP10453-02A	Human	GST	S2-T420
GSK3B	BP10453-02A	Human	GST	S2-T420
HIPK1	BP06470-00A	Human	No tag	T158-I555
HIPK1	BP06470-00A	Human	No tag	T158-I555
HIPK3	BP10458-02A	Human	GST	P161-N562
HIPK3	BP10458-02A	Human	GST	P161-N562
JNK2	BP06033-00A	Human	No tag	M1-E364
MAPK4	BP11169-12A	Human	His/GST	A2-W587
P38α (MAPK14)	BP06422-02A	Human	GST	S2-S360
P38β	BP10474-02A	Human	GST	S2-Q364
P38γ	BP10475-02A	Human	GST	S2-L367
P38δ	BP10476-02A	Human	GST	S2-L365
SRPK1	BP06520-00A	Human	No tag	M1-S655

STE Kinases

Protein	Supplier No.	Species	Tag	Sequence
ASK1	BP04608-21A	Human	GST/His	M649-K946
GCK	BP06353-01A	Human	His	M1-Q465
GCK	BP06353-00A	Human	No tag	M1-Q465
LOK	BP10188-02A	Human	GST	M1-S348
MAP4K4 (HGK)	BP10456-02A	Human	GST	A2-E328
MAP4K6	BP06471-02A	Human	GST	M1-G314

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Protein	Supplier No.	Species	Tag	Sequence
MST2	BP07162-02A	Human	GST	M1-F491
MST3	BP06564-02A	Human	GST	M1-H443
MST4	BP07116-02A	Human	GST	M1-P416
SCYL3	BP11306-12A	Human	His/GST	G2-W742
YSK	BP10001-02A	Human	GST	A2-R426

TK Kinases

Protein	Supplier No.	Species	Tag	Sequence
BTK	BP00692-02A	Human	GST	M1-S659
BTK	BP00692-00A	Human	No tag	M1-S659
CSF1R(FMS)	BP10452-02A	Human	GST	Y538-C972
DDR2	BP10510-02A	Human	GST	R422-E855
EPHA2	BP10512-02A	Human	GST	R561-I976
EPHA3	BP10513-02A	Human	GST	K579-V983
EPHB1	BP03667-00A	Human	No tag	D602-A896
FGFR1	BP23173-13A	Human	His/StrepII	A458-E765
LTK	BP10464-02A	Human	GST	K450-S864
MET	BP10712-12A	Human	His/GST	K956-S1390

TKL Kinases

Protein	Supplier No.	Species	Tag	Sequence
IRAK4	BP06277-01A	Human	His	E154-S460
MLKL	BP11170-12A	Human	His/GST	E2-K471

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Other Kinases

Protein	Supplier No.	Species	Tag	Sequence
AURKA	BP10466-02A	Human	GST	D2-S403
CaMK1δ	BP10496-02A	Human	GST	A2-K385
CDKN2C	BP14459-13A	Human	His/Strep	M1-Q168
CDKN2C	BP14459-00A	Human	No tag	M1-Q168
CKS1	BP14947-00A	Human	No tag	M1-K79
CKS2	BP14948-01A	Human	His	M1-K79
CKS2	BP14948-00A	Human	No tag	M1-K79
FIP1L1	BP11158-12A	Human	His/GST	S2-E594
HRI	BP15388-00A	Human	No tag	S161-S586
IKKβ	BP10459-02A	Human	GST	S695-S756
MKNK1	BP09317-02A	Human	GST	M1-L424
MVK	BP14342-13A	Human	His/Strep	M1-L396
NEK6	BP09993-02A	Human	GST	A2-T313
P70S6K	BP10477-02A	Human	GST	R2-L525
PGK1	BP05820-00A	Human	No tag	S2-I417
PI4KB	BP12169-12A	Human	His/GST	G2-M816
PIK3R3	BP10623-12A	Human	His/GST	Y2-R461
PIP4K2A	BP12077-00A	Human	No tag	A2-T406
PIP4K2B	BP12071-00A	Human	No tag	S2-T416
PIP4K2C	BP12063-00A	Human	No tag	A2-A421
PK3C3	BP12171-12A	Human	His/GST	G2-K887
PLK1	BP06270-00A	Human	No tag	D371-S603
PLK2	BP07377-00A	Human	No tag	H57-A360
PLK4	BP05917-01A	Human	His	G581-G808
SBK3	BP11303-12A	Human	His/GST	E2-P359
SGK	BP12301-00A	Human	No tag	S61-L431
TAB1	BP06352-00A	Human	No tag	M1-G370
TPM3	BP11160-12A	Human	His/GST	M2-I285
WEE2	BP11155-12A	Human	His/GST	D2-H567

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Membrane Proteins

Membrane proteins are involved in cell-to-cell signaling, cell-to-matrix interactions, cell formation, and transmembrane transport of various ions, metabolites and proteins. Based on the role of membrane proteins in these important cellular functions, the study and subsequent therapeutic development against these targets has been a rising research interest.

ABC Transporters

Protein	Supplier No.	Species	Tag	Sequence
bABCC1	BP18994-00A	Bovine	No tag	M1-V1530
ABCG2	BP19484-00A	Human	No tag	M1-S655, E211Q
ABCC4	BP19030-00A	Human	No tag	M1-L1325, E1202Q
ABCC2	BP19386-00A	Human	No tag	M1-F1545
ABCC2	BP20001-00A	Human	No tag	M1-F1545, E1462Q
ABCB10	BP14820-41A	Human	Flag/His	A152-A738

GPCRs

Protein	Supplier No.	Species	Tag	Sequence
5HT1B	BP13322-41A	Human	Flag/His	Inquire for details
5HT2A	BP18927-41A	Human	Flag/His	Inquire for details
AA2AR	BP19677-41A	Human	Flag/His	Inquire for details
APJ	BP14125-41A	Human	Flag/His	Inquire for details
CCR5	BP11803-41A	Human	Flag, His	Inquire for details
CCR8	BP31063-41A	Human	Flag, His	Inquire for details
CNR1	BP13552-41A	Human	Flag/His	Inquire for details
CXCR4	BP13553-41A	Human	Flag/His	Inquire for details
CXCR4	BP13613-41A	Human	Flag/His	Inquire for details
CXCR4	BP13488-41A	Human	Flag/His	Inquire for details
EDNRA	BP12469-04A	Human	Flag	Inquire for details
GLP1R	BP13349-01A	Human	His	Inquire for details

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Protein	Supplier No.	Species	Tag	Sequence
GLP1R	BP30617-41A	Human	Flag, His	Inquire for details
GPR155	BP25968-00A	Human	No tag	M1-T870
GPR75	BP23703-41A	Human	Flag/His	Inquire for details
GPRC5D	BP27930-04A	Human	Flag	Y2-A279
M1R	BP14813-04A	Human	Flag	Inquire for details
M2R	BP14814-04A	Human	Flag	Inquire for details

Ion Channels

Protein	Supplier No.	Species	Tag	Sequence
CLC1	BP18806-00A	Human	No tag	K81-L988
GABRB3	BP15146-03A	Human	StrepII	Inquire for details
GlyRa3	BP18652-03A	Human	StrepII	Inquire for details
hERG	BP13596-00A	Human	No tag	Inquire for details
TASK-1	BP18653-00A	Human	No tag	M1-E259
TEME175	BP30910-00A	Human	No tag	M1-C504
TEME175	BP30911-01A	Human	His	M1-C504
TRPV3	BP10318-04A	Human	Flag	K2-V790

Solute Carriers, SLCs

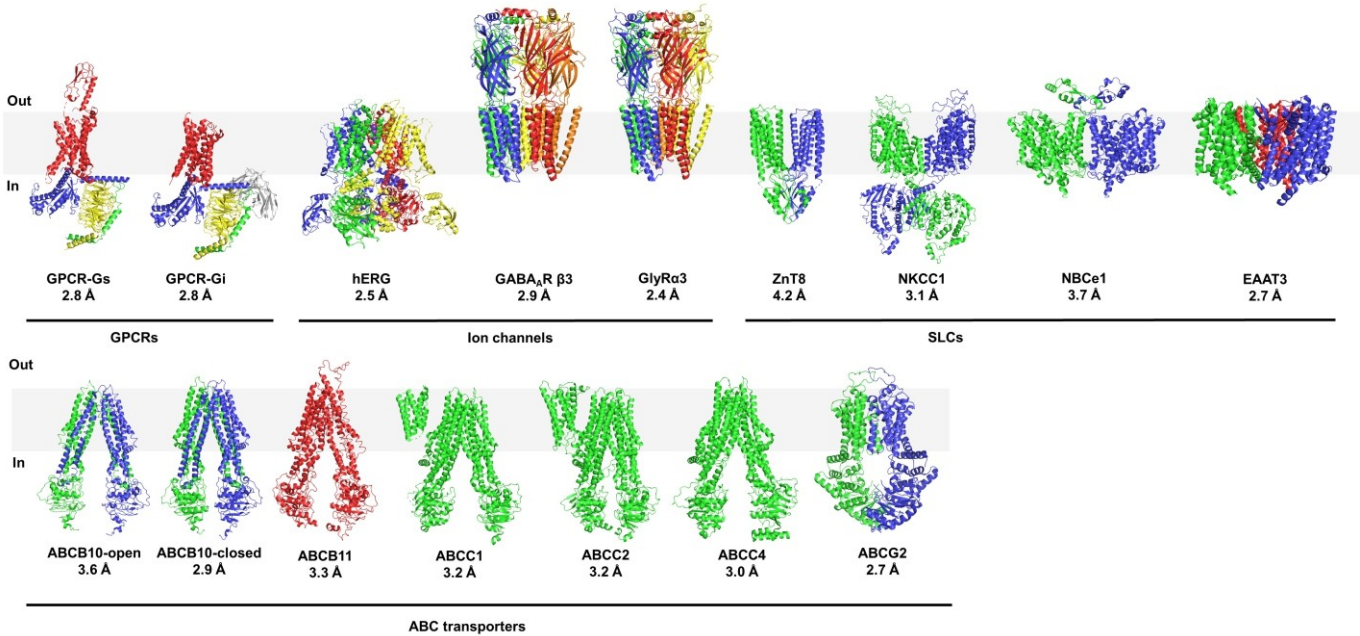
Protein	Supplier No.	Species	Tag	Sequence
ASCT2	BP18730-00A	Human	No tag	M1-M541
EAAT1	BP18698-13A	Human	His/StrepII/eGFP	Inquire for details
FPN	BP19023-00A	Human	No tag	M1-V571
GLUT1	BP28236-01A	Human	His	M1-V492
GlyT1	BP18696-01A	Human	His/eGFP	Inquire for details
NKCC1	BP18930-13A	Human	His/StrepII/eGFP	M1-S1212
SERT	BP18799-00A	Human	No tag	M1-Q76,G77-T618

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Protein	Supplier No.	Species	Tag	Sequence
SGLT1	BP27881-01A	Human	His	M1-A664
SLC12A1	BP09213-14A	Human	His/MBP/Flag	S2-S1099
SLC26A4	BP19032-00A	Human	No tag	M1-S780
SLC26A5	BP17241-13A	Human	eGFP/StrepII/His	M1-A744
SLC3A2/SLC7A11	BP13331-4C7	Human	Flag	E2-A630/M1-L501
SMCT1	BP18908-00A	Human	No tag	M1-L610

Other Membrane Proteins

Protein	Supplier No.	Species	Tag	Sequence
DHHC20	BP18726-00A	Human	No tag	M1-N365
EGFR	BP19139-00A	Human	No tag	Inquire for details
GGCX	BP10379-04A	Human	Flag	M1-F758
SCD1	BP18609-01A	Human	His	Inquire for details
SERCA2	BP18820-13A	Human	His/StrepII/eGFP	M1-S1042
SIGMAR1	BP18691-00A	Human	No tag	M1-P223
VKOR1	BP12526-01A	Human	His	S3-E155
VKOR1	BP12684-01A	Human	His	M1-H163



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Proteases and Enzymes

Proteases are classified into several categories based on their catalytic mechanism, such as serine proteases, cysteine proteases, aspartic proteases, metalloproteases, and threonine proteases. These unique catalytic mechanisms are what impart the substrate specificity for their function.

Proteases are also important targets for drug development, as their dysregulation has been linked to many diseases, including cancer, Alzheimer's disease, and viral infections. Inhibitors of specific proteases have been developed as potential therapeutic agents for these diseases.

Protein	Supplier No.	Species	Tag	Sequence
5-Aminolevulinic acid synthase	BP06876-00A	Rhodopseudomonas palustris	No tag	M1-E409
5-Aminolevulinic acid synthase	BP07439-01A	Rhodobacter capsulatus	His	M1-A401
ADSL	BP14619-00A	Human	No tag	M1-L484
ADSL	BP14619-13A	Human	His/Strep	M1-L484
aKMT	BP15546-00A	Sulfolobus islandicus	No tag	S2-K161
arcA	BP06710-00A	Pseudomonas plecoglossicida	No tag	M1-Y417
BCAT1	BP17239-00A	Human	No tag	K2-S386
BCAT2	BP17240-00A	Human	No tag	A28-V392
beta-mannanase	BP08156-01A	Lonsdalea quercina	His	M1-S348
CA1	BP14587-00A	Human	No tag	M1-F261
CA13	BP14147-00A	Human	No tag	M1-H262
CA3	BP14592-00A	Human	No tag	M1-K260
CA7	BP14558-13A	Human	His/Strep	M1-A264
Carbonyl reductase	BP07434-00A	Bacillus sp. FJAT-22058	No tag	M1-W235
Carboxylesterase NP	BP09351-00A	Bacillus subtilis	No tag	M1-R300
Catalase	BP06734-41A	Bacillus subtilis subsp. subtilis str. 168	Flag/His	M1-A483
Cephalosporin C deacetylase	BP07419-01A	Bacillus subtilis	His	M1-G318
FASN	BP07308-00A	Human	No tag	Q1109-G1524
IDH1	BP04728-00A	Human	No tag	S2-L414
IDH1	BP04728-01A	Human	His	S2-L414
ido	BP06711-00A	Bacillus thuringiensis	No tag	M1-K240

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Protein	Supplier No.	Species	Tag	Sequence
ido	BP06711-41A	Bacillus thuringiensis	Flag/His	M1-K240
inuB	BP07442-01A	Bacillus licheniformis	His	M1-K492
L-asparaginase	BP13523-00A	Dickeya chrysanthemi	No tag	A22-Y348
leucyl aminopeptidase	BP08119-01A	Geobacillus kaustophilus	His	M1-D500
maiA	BP06721-00A	Serratia marcescens	No tag	M1-Y250
metK	BP07441-00A	Shigella sonnei	His	M1-K384
MGLL	BP12349-00A	Human	No tag	P2-P303
MGMT	BP14282-00A	Human	No tag	M1-N207
N-Carbamoylase	BP08075-00A	Burkholderia multivorans	No tag	M1-S426
nitA	BP07450-00A	Rhodococcus rhodochrous	No tag	M1-K369
nitA	BP07450-01A	Shigella sonnei	His	M1-K369
NUDT1	BP12351-00A	Human	No tag	Y2-V197
PARP14	BP15828-13A	Human	His/Strep	F1208-E1387
patZ	BP15456-00A	Escherichia coli	No tag	S2-S886
PDE2A3	BP12232-00A	Human	No tag	G2-E941
Pectinesterase	BP08044-00A	Lachnoclostridium phytofermentans	No tag	M1-D345
Pectinesterase	BP08044-01A	Lachnoclostridium phytofermentans	His	M1-D345
PGAM1	BP14655-00A	Human	No tag	M1-K254
PGAM1	BP14655-13A	Human	His/Strep	M1-K254
PGD	BP14628-00A	Human	No tag	M1-A483
PGD	BP14628-13A	Human	His/Strep	M1-A483
PHGDH	BP05647-01A	Human	His	A4-V315
PKCi	BP06030-01A	Human	His	M1-G126
Polyphosphate glucokinase	BP07444-00A	Thermobifida fusca	No tag	M1-A262
PRIM1	BP14626-00A	Human	No tag	M1-F420
PRIM1	BP14626-13A	Human	His/Strep	M1-F420
PSAT1	BP05821-01A	Human	His	L17-L370
PTPRG	BP05831-00A	Human	No tag	P820-N1130
pulB	BP06777-00A	Pullulanibacillus naganoensis	No tag	D1-K926
RAB6A	BP14519-13A	Human	His/Strep	M1-C208

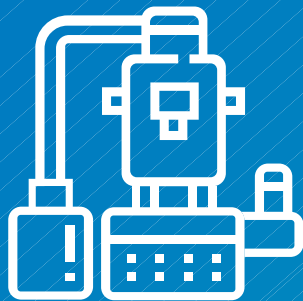
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Protein	Supplier No.	Species	Tag	Sequence
RPE	BP14477-00A	Human	No tag	M1-R228
SHMT1	BP05799-00A	Human	No tag	D11-L480
sialic acid lyase	BP07349-01A	Staphylococcus haemolyticus	His	M1-L293
SRC	BP15445-00A	Mouse	No tag	V85-L535
xdh	BP15509-00A	Paenarthrobacter nicotinovorans	No tag	T2-L388
xylose isomerase	BP06718-41A	Thermobifida fusca	Flag/His	M1-R385
Xylose reductase	BP07438-01A	Neurospora crassa	His	M1-G322
YPR1	BP15513-00A	Saccharomyces cerevisiae	No tag	P2-Q312

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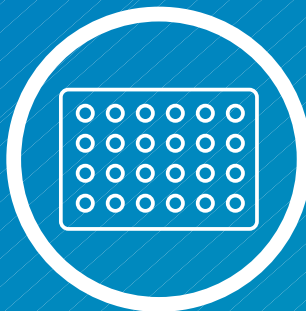
Biortus Custom Services

Since 2009, Biortus has partnered with numerous research institutions, biotechnology companies, and pharmaceutical companies in all fields of research. Our Protein Catalog is just one of the many services we provide. Biortus is a structure-based drug discovery CRO with a mature protein focused lead generation platform including modular services in protein production, assay development, fragment screening, and structure determination in microED, CryoEM, and X-ray crystallography. With our Custom Services, you can customize any product per your experimental needs, expect lot-to-lot consistency, and have it delivered to you quickly.



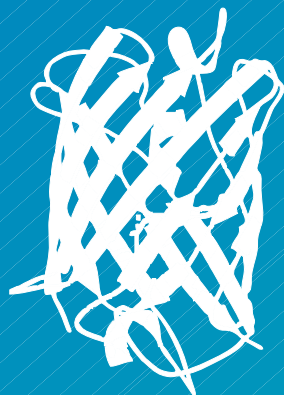
Recombinant Protein Production

- Dedicated Membrane Protein Production group
- High-throughput parallel monitoring for efficient identification of ideal constructs and conditions
- Directed Construct Design, Generation, and Mutagenesis
- Multiple expression systems: E.coli, Insect cell, Mammalian cell, etc.
- Single and multi-step purification (Affinity, IEX, SEC)
- Standard and custom functional QC



In vitro Assays and Screening

- 4 Fragment libraries with ~ 10,000 unique fragments total
- Biochemical and Biophysical assays for Binding Kinetics, Off-target screening, Hit Validation, etc.
- *De novo* method development
- SPR/ Caliper/ CE/ DSF/Thermofluor/ Radiometric assays.



Structure Determination

