

Supplementary information S1 (table) | **A comprehensive list of the known human E2 enzymes and their key features.**

UniPro accession No.	Gene name	Other names	Amino acids	Yeast homologue	Additional features	Chain product	Known function
P49459	<i>UBE2A</i>	HR6A, RAD6A	152	UBC2/ Rad6			DNA repair
P63146	<i>UBE2B</i>	HR6B, RAD6B	152	UBC2/Rad6			DNA repair
O00762	<i>UBE2C</i>	UBCX, UbcH10	179		N-terminal extension	Lys11 chain	Cell cycle regulation
P51668	<i>UBE2D1</i>	UbcH5A, E2-17K1	147	UBC4 or UBC5			
P62837	<i>UBE2D2</i>	UbcH5B, UBC4, E2-17K2	147	UBC4 or UBC5			
P61077	<i>UBE2D3</i>	UbcH5C, E2-17K3	147	UBC4 or UBC5			
Q9Y2X8	<i>UBE2D4</i>	HBUCE1	147	UBC4 or UBC5			
P51965	<i>UBE2E1</i>	UbcH6	193		N-terminal extension		
Q96LR5	<i>UBE2E2</i>	UbcH8	201		N-terminal extension		
Q969T4	<i>UBE2E3</i>	UBCE4, UbcH9, UbcM2, E2-23K	207		N-terminal extension		
Q969M7	<i>UBE2F</i>	NCE2	185		5 isoforms	NEDD8 conjugation	
P62253	<i>UBE2G1</i>	Ubc7	170	UBC7	Acidic loop	Lys48 chain	ER quality control
P60604	<i>UBE2G2</i>	Ubc7	165	UBC7	Acidic loop	Lys48 chain	ER quality control
P61086	<i>UBE2H</i>	UbcH2, E2-20K	183	UBC8	C-terminal extension		
P63279	<i>UBE2I</i>	Ubc9	158	UBC9		SUMO conjugation	
Q9Y385	<i>UBE2J1</i>	NCUBE1	318	UBC6	C-terminal TM domain		ER quality control
Q8N2K1	<i>UBE2J2</i>	NCUBE2	259	UBC6	C-terminal TM domain, 2 isoforms		ER quality control
P61086	<i>UBE2K</i>	Ubc1, HIP-2, E2-25K	200	UBC1	C-terminal extension with UBA, 2 isoforms.	Lys48 chain	Protein quality control
P68036	<i>UBE2L3</i>	UbcH7, E2-F1, L-UBC, UBCE7	154				
O14933	<i>UBE2L6</i>	UbcH8, RIG-B	152			ISG15 conjugation, also conjugates ubiquitin	Interferon signalling
P61081	<i>UBE2M</i>	Ubc12	183	UBC12	N-terminal extension	NEDD8 conjugation	Regulation of SCF
P61088	<i>UBE2N</i>	Ubc13, BLU	152	UBC13	form UBC13-UBE2V1 heterodimer	Lys63 chain	NFκB signalling, DNA repair
Q5JXB2	<i>UBE2NL</i>		153	UBC13	No active site Cys		
Q9C0C9	<i>UBE2O</i>	E2-230K	1292		Both N-, C- extensions		
Q7Z7E8	<i>UBE2Q1</i>	NICE-5, Ube2Q	422		N-terminal extension, 2 isoforms		
Q8WVN8	<i>UBE2Q2</i>		375		N-terminal extension, 2 isoforms		
P49427	<i>UBE2R1</i>	Cdc34, Ubc3, E2-32K	236	UBC3, Cdc34	Acidic loop, C-terminal extension	Lys48 chain	Cell cycle regulation
Q712K3	<i>UBE2R2</i>	Cdc34B, Ubc3B	238	UBC3, Cdc34	Acidic loop, C-terminal extension	Lys48 chain	Cell cycle regulation
Q16763	<i>UBE2S</i>	E2-EPF5, E2-24K	222		C-terminal extension	Lys11 chain	Cell cycle regulation
Q9NPD8	<i>UBE2T</i>	HSPC150	197		C-terminal extension	Mono-ubiquitylation	DNA repair
Q5VVX9	<i>UBE2U</i>		321		C-terminal extension, 2 isoforms		

SUPPLEMENTARY INFORMATION

Q13404	<i>UBE2V1</i>	UEV-1	221		No active site Cys, N-terminal extension, UBC13-UEV-1 heterodimer, 5 isoforms	Lys63 chain	NFκB signalling, DNA repair
Q15819	<i>UBE2V2</i>	MMS2, EDPF-1, UEV2	145	Mms2	No active site Cys, UBC13-UEV-2 heterodimer	Lys63 chain	NFκB signalling, DNA repair
Q8IX04	<i>UBE2V3</i>	UEVLD, UEV-3	471		No active site Cys, C-terminal extension, 5 isoforms		
Q96B02	<i>UBE2W</i>		151		2 isoforms		
Q9H832	<i>UBE2Z</i>	Use1, HOYS7	354		N- and C-terminal extensions, 2 isoforms	Acts with the second Ub E1 Uba6	
Q9H8T0	<i>AKTIP</i>	FTS	292		No active site Cys, N- and C- terminal extensions		
UPI0000DBEF4D	<i>BIRC6</i>	Bruce, Apollon	4829		N- and C-terminal extensions		Apoptosis, cytokinesis