

GO Category	Human		Number Sensitive
	Number Sensitive	Gene	
Response to DNA damage stimulus	1	ATR	11
DNA repair	6	LIG1, RFC5, UNG, ATR, POLD1, TREX1	10
DNA replication	9	LIG1, RFC5, RFC5, LIG4, ATR, POLD1, RRM2, TREX1, TREX1	5
DNA recombination	4	LIG1, RAG2, TREX1, TREX1	7
DNA metabolic process	1	LIG1	2
Base-excision repair	4	OGG1, TDG, UNG, NEIL1, MPG*	1
DNA dealkylation	1	MPG*	1
Protein modification process	6	B4GALT7, ICMT, CHRM3, PADI1, UBE3B, PADI4	0
Transcription initiation	2	KLP1, TAF1L	0
Protein targeting to membrane	2	ICMT, APG4C	0
Transcription	1	GRLF1	10
Regulation of transcription	4	KLP1, POFUT1, PADI4, TRIM28	2
Negative regulation of DNA replication	1	ATR	0
Mismatch repair	3	TDG, TREX1, TREX1	1
Protein processing	1	CASP1	0
Fatty acid biosynthetic process	2	PTGIS, THEDC1	0
Response to drug	2	HMGCS2, RPS6KB1	0
Response to pH	1	STS	0
Negative regulation of translation	1	HRI	0
Positive regulation of gene-specific transcription	1	TRIM28	0

GO Category	Bacteria	Number Sensitive
	Gene	
Response to DNA damage stimulus	ada, alka, reca, recb, recc, recn, reco, ruva, ruvb, ruvc, yjiw	56
DNA repair	ada, alka, reca, recb, recc, recn, reco, ruva, ruvb, ruvc	45
DNA replication	dnag, dnak, dnat, holc, pria	21
DNA recombination	reca, recn, reco, ruva, ruvb, ruvc, xerc	11
DNA metabolic process	dnag, reca	6
Base-excision repair	alka	4
DNA dealkylation	alka	1
Protein modification process		4
Transcription initiation		2
Protein targeting to membrane		2
Transcription	ada, arcb, cadc, cynr, dnag, fis, mara, oxyr, slya, uidr	39
Regulation of transcription	mara, uidr	34
Negative regulation of DNA replication		1
Mismatch repair	dam	1
Protein processing	NA	3
Fatty acid biosynthetic process	NA	4
Response to drug	NA	12
Response to pH	NA	1
Negative regulation of translation	NA	1
Positive regulation of gene-specific transcription	NA	1

GO Category	Yeast	Combined		
	Gene	Total Proteins	# Alkylation Sensitive	Z-score
Response to DNA damage stimulus	MMS4, DCC1, RAD18, RAD59, DUN1, NUP84, RAD57, RAD55, HPR1, RAD9, XRS2, MUS81, RAD51, MAG1, RAD24, RPB9, MMS2, RAD54, WSS1, CTF8, MET18, CSM2, REV7, MPH1, CTK2, SRS2, ASF1, RPB4, POL32, MGM101, DEF1, RAD27, CTK1, RTT109, RAD5, SLX4, BUR2, TOP3, MMS22, PSY3, BDF1, RAD52, CTK3, HOP1, NPL6, SGS1, YAF9, RAD50, CKB2, REV1, RAD17, RMI1, REV3, DDC1, CTF4, MMS1	297	68	17.9
DNA repair	MMS4, MSI1, RAD18, RAD59, DUN1, RAD57, RAD55, RAD9, XRS2, MUS81, RAD51, MAG1, RAD24, RPB9, RAD54, WSS1, CTF8, MET18, CSM2, REV7, MPH1, SRS2, ASF1, SPT10, RPB4, POL32, MGM101, RAD27, RTT109, RAD5, SLX4, TOP3, MMS22, PSY3, BDF1, RAD52, SGS1, YAF9, RAD50, REV1, RAD17, REV3, DDC1, CTF4, MMS1	316	62	16.2
DNA replication	CCR4, DCC1, RAD9, RAD24, RRM3, WSS1, RTT107, CTF8, SRS2, ASF1, POL32, RAD27, SLX4, TOP3, RAD52, SGS1, REV1, RAD17, RMI1, REV3, CTF4	203	35	10.6
DNA recombination	MMS4, RAD59, HPR1, MUS81, ERG28, RAD51, SHU1, SLX4, CDC73, RAD52, SGS1	158	22	9.4
DNA metabolic process	MMS4, RAD57, RAD55, MUS81, RAD51, TOP3	36	9	8.2
Base-excision repair	XRS2, MAG1, POL32, RAD50	36	10	6.9
DNA dealkylation	MAG1	7	4	5.1
Protein modification process	PBY1, STP22, AIM22, LIP2	122	10	4.6
Transcription initiation	SWC3, DEP1, CCR4, ROX3, SWC5, HPR1, UME6, ADR1, ESC2, IES6, MOT2, RPB9, RTF1, OPI1, RIM101, STB5, MET18, CTK2, ASF1, RPB4, CTK1, RTT109, ARP6, IOC2, SWI6, BUR2, RSC2, BDF1, CDC73, YAP1, CTK3, NPL6, YAF9, CSE2, HTZ1, UAF30, LGE1, TAF14, HFI1	29	4	4.3
Protein targeting to membrane	STP22, VPS28	18	4	4.0
Transcription	SWC3, DEP1, CCR4, ROX3, SWC5, HPR1, UME6, ADR1, ESC2, IES6, MOT2, RPB9, RTF1, OPI1, RIM101, STB5, MET18, CTK2, ASF1, RPB4, CTK1, RTT109, ARP6, IOC2, SWI6, BUR2, RSC2, BDF1, CDC73, YAP1, CTK3, NPL6, YAF9, CSE2, HTZ1, UAF30, LGE1, TAF14, HFI1	901	50	3.8
Regulation of transcription	UME6, STB5, SSK1, YAP1, YAF9, TAF14	650	40	3.6
Negative regulation of DNA replication	RAD9	12	2	2.9
Mismatch repair	POL32	48	5	2.4
Protein processing	RIM101, RIM13, DFG16	34	4	2.4
Fatty acid biosynthetic process	OAR1, ERG3, HFA1, SCS7	79	6	2.4
Response to drug	SWC3, CCR4, UBP14, PPH3, UME6, RPB9, STB5, SOD1, EAP1, PEP3, MMS22, YAP1	260	14	2.0
Response to pH	RIM101	18	2	2.0
Negative regulation of translation	EAP1	16	2	1.8
Positive regulation of gene-specific transcription	SWI6	33	2	1.6