

**MOMA Cancerpanel v4 (2020-10-01), 118 genes**

Approved symbol	Approved name	HGNC ID	Location
<a href="#">ABRAXAS1</a>	abraxas 1, BRCA1 A complex subunit	HGNC:25829	4q21.23
<a href="#">ACD</a>	ACD shelterin complex subunit and telomerase recruitment factor	HGNC:25070	16q22.1
<a href="#">AIP</a>	aryl hydrocarbon receptor interacting protein	HGNC:358	11q13.2
<a href="#">AKT1</a>	AKT serine/threonine kinase 1	HGNC:391	14q32.33
<a href="#">AP2S1</a>	adaptor related protein complex 2 subunit sigma 1	HGNC:565	19q13.32
<a href="#">APC</a>	APC regulator of WNT signaling pathway	HGNC:583	5q22.2
<a href="#">ATM</a>	ATM serine/threonine kinase	HGNC:795	11q22.3
<a href="#">ATR</a>	ATR serine/threonine kinase	HGNC:882	3q23
<a href="#">AXIN2</a>	axin 2	HGNC:904	17q24.1
<a href="#">BAP1</a>	BRCA1 associated protein 1	HGNC:950	3p21.1
<a href="#">BARD1</a>	BRCA1 associated RING domain 1	HGNC:952	2q35
<a href="#">BLM</a>	BLM RecQ like helicase	HGNC:1058	15q26.1
<a href="#">BMPR1A</a>	bone morphogenetic protein receptor type 1A	HGNC:1076	10q23.2
<a href="#">BRCA1</a>	BRCA1 DNA repair associated	HGNC:1100	17q21.31
<a href="#">BRCA2</a>	BRCA2 DNA repair associated	HGNC:1101	13q13.1
<a href="#">BRIP1</a>	BRCA1 interacting protein C-terminal helicase 1	HGNC:20473	17q23.2
<a href="#">BUB1</a>	BUB1 mitotic checkpoint serine/threonine kinase	HGNC:1148	2q13
<a href="#">BUB3</a>	BUB3 mitotic checkpoint protein	HGNC:1151	10q26.13
<a href="#">CASR</a>	calcium sensing receptor	HGNC:1514	3q13.33-q21.1
<a href="#">CDC73</a>	cell division cycle 73	HGNC:16783	1q31.2
<a href="#">CDH1</a>	cadherin 1	HGNC:1748	16q22.1
<a href="#">CDK4</a>	cyclin dependent kinase 4	HGNC:1773	12q14.1
<a href="#">CDKN1A</a>	cyclin dependent kinase inhibitor 1A	HGNC:1784	6p21.2
<a href="#">CDKN1B</a>	cyclin dependent kinase inhibitor 1B	HGNC:1785	12p13.1
<a href="#">CDKN2A</a>	cyclin dependent kinase inhibitor 2A	HGNC:1787	9p21.3
<a href="#">CDKN2B</a>	cyclin dependent kinase inhibitor 2B	HGNC:1788	9p21.3
<a href="#">CDKN2C</a>	cyclin dependent kinase inhibitor 2C	HGNC:1789	1p32.3
<a href="#">CHEK1</a>	checkpoint kinase 1	HGNC:1925	11q24.2
<a href="#">CHEK2</a>	checkpoint kinase 2	HGNC:16627	22q12.1
<a href="#">CTNNA1</a>	catenin alpha 1	HGNC:2509	5q31.2
<a href="#">CTNNB1</a>	catenin beta 1	HGNC:2514	3p22.1
<a href="#">DICER1</a>	dicer 1, ribonuclease III	HGNC:17098	14q32.13
<a href="#">ENG</a>	endoglin	HGNC:3349	9q34.11
<a href="#">EPAS1</a>	endothelial PAS domain protein 1	HGNC:3374	2p21
<a href="#">EPCAM</a>	epithelial cell adhesion molecule	HGNC:11529	2p21
<a href="#">EXO1</a>	exonuclease 1	HGNC:3511	1q43
<a href="#">FAN1</a>	FANCD2 and FANCI associated nuclease 1	HGNC:29170	15q13.3
<a href="#">FANCC</a>	FA complementation group C	HGNC:3584	9q22.32
<a href="#">FANCM</a>	FA complementation group M	HGNC:23168	14q21.2
<a href="#">FH</a>	fumarate hydratase	HGNC:3700	1q43

**MOMA Cancerpanel v4 (2020-10-01), 118 genes**

Approved symbol	Approved name	HGNC ID	Location
<a href="#">FLCN</a>	folliculin	HGNC:27310	17p11.2
<a href="#">GALNT12</a>	polypeptide N-acetylgalactosaminyltransferase 12	HGNC:19877	9q22.33
<a href="#">GEN1</a>	GEN1 Holliday junction 5' flap endonuclease	HGNC:26881	2p24.2
<a href="#">GNA11</a>	G protein subunit alpha 11	HGNC:4379	19p13.3
<a href="#">GNAS</a>	GNAS complex locus	HGNC:4392	20q13.32
<a href="#">HOXB13</a>	homeobox B13	HGNC:5112	17q21.32
<a href="#">KIT</a>	KIT proto-oncogene, receptor tyrosine kinase	HGNC:6342	4q12
<a href="#">LZTR1</a>	leucine zipper like transcription regulator 1	HGNC:6742	22q11.21
<a href="#">MAX</a>	MYC associated factor X	HGNC:6913	14q23.3
<a href="#">MEN1</a>	menin 1	HGNC:7010	11q13
<a href="#">MET</a>	MET proto-oncogene, receptor tyrosine kinase	HGNC:7029	7q31
<a href="#">MITF</a>	melanocyte inducing transcription factor	HGNC:7105	3p13
<a href="#">MLH1</a>	mutL homolog 1	HGNC:7127	3p22.2
<a href="#">MLH3</a>	mutL homolog 3	HGNC:7128	14q24.3
<a href="#">MRE11</a>	MRE11 homolog, double strand break repair nuclease	HGNC:7230	11q21
<a href="#">MSH2</a>	mutS homolog 2	HGNC:7325	2p21-p16.3
<a href="#">MSH3</a>	mutS homolog 3	HGNC:7326	5q14.1
<a href="#">MSH6</a>	mutS homolog 6	HGNC:7329	2p16.3
<a href="#">MUTYH</a>	mutY DNA glycosylase	HGNC:7527	1p34.1
<a href="#">NBN</a>	nibrin	HGNC:7652	8q21.3
<a href="#">NF1</a>	neurofibromin 1	HGNC:7765	17q11.2
<a href="#">NF2</a>	neurofibromin 2	HGNC:7773	22q12.2
<a href="#">NTHL1</a>	nth like DNA glycosylase 1	HGNC:8028	16p13.3
<a href="#">NTRK1</a>	neurotrophic receptor tyrosine kinase 1	HGNC:8031	1q23.1
<a href="#">OGG1</a>	8-oxoguanine DNA glycosylase	HGNC:8125	3p25.3
<a href="#">PALB2</a>	partner and localizer of BRCA2	HGNC:26144	16p12.2
<a href="#">PDGFRA</a>	platelet derived growth factor receptor alpha	HGNC:8803	4q12
<a href="#">PIK3CA</a>	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha	HGNC:8975	3q26.32
<a href="#">PMS1</a>	PMS1 homolog 1, mismatch repair system component	HGNC:9121	2q32.2
<a href="#">PMS2</a>	PMS1 homolog 2, mismatch repair system component	HGNC:9122	7p22.1
<a href="#">POLD1</a>	DNA polymerase delta 1, catalytic subunit	HGNC:9175	19q13.3
<a href="#">POLE</a>	DNA polymerase epsilon, catalytic subunit	HGNC:9177	12q24.33
<a href="#">POLE2</a>	DNA polymerase epsilon 2, accessory subunit	HGNC:9178	14q21.3
<a href="#">POT1</a>	protection of telomeres 1	HGNC:17284	7q31.33
<a href="#">PPM1D</a>	protein phosphatase, Mg <sup>2+</sup> /Mn <sup>2+</sup> dependent 1D	HGNC:9277	17q23.3
<a href="#">PRKAR1A</a>	protein kinase cAMP-dependent type I regulatory subunit alpha	HGNC:9388	17q24.2
<a href="#">PRSS1</a>	serine protease 1	HGNC:9475	7q34
<a href="#">PTCH1</a>	patched 1	HGNC:9585	9q22.32
<a href="#">PTCH2</a>	patched 2	HGNC:9586	1p34.1
<a href="#">PTEN</a>	phosphatase and tensin homolog	HGNC:9588	10q23.31

Dept. of Molecular Medicine (MOMA), Aarhus University Hospital, Denmark  
**MOMA Cancerpanel v4 (2020-10-01), 118 genes**

Approved symbol	Approved name	HGNC ID	Location
<a href="#">RAD50</a>	RAD50 double strand break repair protein	HGNC:9816	5q31.1
<a href="#">RAD51</a>	RAD51 recombinase	HGNC:9817	15q15.1
<a href="#">RAD51B</a>	RAD51 paralog B	HGNC:9822	14q24.1
<a href="#">RAD51C</a>	RAD51 paralog C	HGNC:9820	17q22
<a href="#">RAD51D</a>	RAD51 paralog D	HGNC:9823	17q12
<a href="#">RB1</a>	RB transcriptional corepressor 1	HGNC:9884	13q14.2
<a href="#">RBBP8</a>	RB binding protein 8, endonuclease	HGNC:9891	18q11.2
<a href="#">RET</a>	ret proto-oncogene	HGNC:9967	10q11.21
<a href="#">RINT1</a>	RAD50 interactor 1	HGNC:21876	7q22.3
<a href="#">RNF43</a>	ring finger protein 43	HGNC:18505	17q22
<a href="#">RPS20</a>	ribosomal protein S20	HGNC:10405	8q12.1
<a href="#">SCG5 (GREM1 enhancer)</a>	secretogranin V	HGNC:10816	15q13.3
<a href="#">SDHA</a>	succinate dehydrogenase complex flavoprotein subunit A	HGNC:10680	5p15.33
<a href="#">SDHAF2</a>	succinate dehydrogenase complex assembly factor 2	HGNC:26034	11q12.2
<a href="#">SDHB</a>	succinate dehydrogenase complex iron sulfur subunit B	HGNC:10681	1p36.13
<a href="#">SDHC</a>	succinate dehydrogenase complex subunit C	HGNC:10682	1q23.3
<a href="#">SDHD</a>	succinate dehydrogenase complex subunit D	HGNC:10683	11q23.1
<a href="#">SEMA4A</a>	semaphorin 4A	HGNC:10729	1q22
<a href="#">SLX4</a>	SLX4 structure-specific endonuclease subunit	HGNC:23845	16p13.3
<a href="#">SMAD4</a>	SMAD family member 4	HGNC:6770	18q21.2
<a href="#">SMARCA4</a>	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4	HGNC:11100	19p13.2
<a href="#">SMARCB1</a>	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily b, member 1	HGNC:11103	22q11.23
<a href="#">SMO</a>	smoothened, frizzled class receptor	HGNC:11119	7q32.1
<a href="#">SPINK1</a>	serine peptidase inhibitor Kazal type 1	HGNC:11244	5q32
<a href="#">SPRED1</a>	sprouty related EVH1 domain containing 1	HGNC:20249	15q14
<a href="#">STK11</a>	serine/threonine kinase 11	HGNC:11389	19p13.3
<a href="#">SUFU</a>	SUFU negative regulator of hedgehog signaling	HGNC:16466	10q24.32
<a href="#">TERF2IP</a>	TERF2 interacting protein	HGNC:19246	16q23.1
<a href="#">TERT</a>	telomerase reverse transcriptase	HGNC:11730	5p15.33
<a href="#">TMEM127</a>	transmembrane protein 127	HGNC:26038	2q11.2
<a href="#">TP53</a>	tumor protein p53	HGNC:11998	17p13.1
<a href="#">TP53BP1</a>	tumor protein p53 binding protein 1	HGNC:11999	15q15.3
<a href="#">TSC1</a>	TSC complex subunit 1	HGNC:12362	9q34
<a href="#">TSC2</a>	TSC complex subunit 2	HGNC:12363	16p13.3
<a href="#">UIMC1</a>	ubiquitin interaction motif containing 1	HGNC:30298	5q35.2
<a href="#">VHL</a>	von Hippel-Lindau tumor suppressor	HGNC:12687	3p25.3
<a href="#">XRCC2</a>	X-ray repair cross complementing 2	HGNC:12829	7q36.1
<a href="#">XRCC3</a>	X-ray repair cross complementing 3	HGNC:12830	14q32.33