DNA REPAIR GENE XRCC1 POLYMORPHISM IN EGYPTIAN ACUTE LEUKEMIA PATIENTS

Thesis

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LIST OF ABBREVIATIONS

٦-MP	**:**	٦-mercaptopurine.
A	**:**	Adenine.
aa	**:**	Amino acid.
ADPRT	**:**	ADP-ribosyltransferase.
ADR	**:**	Adriamycin.
AFB١-DNA	**:**	Aflatoxin B١-DNA adducts.
ALL	**:**	Acute lymphoblast leukemia.
AML	**:**	Acute myeloblastic leukemia.
AP	**:**	Apyrimidinic.
APE١	**:**	Apurinic or apyrimidinic endonuclease١.
APEX	**:**	Apurinic/apyrimdinic DNA endonuclease.
Arg	**:**	Arginine.
A-T	**:**	Ataxia Telangiectasia syndrome.
ATL	**:**	Adult T-cell leukemia.
ATP	**:**	Adenosine triphosphate.
ATRA	**:**	Adenosine triphosphate.
AUL	**:**	Acute undifferentiated leukemia.
BER	**:**	Base excision repair.
BM	**:**	Bone marrow.
BMT	**:**	Bone marrow transplantation.
bp	**:**	Base pair.
BRCA١	**:**	Breast cancer susceptibility gene١.
BRCA٢	**:**	Breast cancer susceptibility gene٢.
C	**:**	Cytosine.
CBC	**:**	Complete blood count.
CD	**:**	Clusters of differentiation.

CDNA	:	Complementary – deoxyribonucleic acid.
CEN	:	Centeromere.
CH^3	:	Methyl group
cIg	:	Cytoplasmic immunoglobulin.
CK^2	:	Cycline Kinase.
CR	:	Complete remission.
CSF	:	Cerebrospinal fluid.
C-terminal	:	COOH terminal carboxylic group terminal.
Cyt μ	:	Cytoplasmic muta chain.
D; d	:	Day.
DDI	:	Death during induction.
Del	:	Deletion.
DIC	:	Disseminated intravascular coagulopathy.
dl	:	Deciliter.
DNA	:	Deoxy ribonucleic acid.
DNA-PK(cs)	:	DNA-protein kinase.
DNR	:	Douanorubicin.
dNTP	:	Dinucleotide triphosphate.
dRpase	:	Deoxyribophosphor-diesterase.
Ds	:	Double strand.
DSBs	:	Double strand breaks.
EDTA	:	Ethylenediamine tetra-acetic acid.
EMS	:	Ethylmethane sulphonate.
ERCC1	:	Excision repair cross-complementing rodent deficiency, group 1.
FAB	:	French British American classification of acute leukemia.

FANC	:	Fanconi anemia protein.
FANCC	:	Fanconi anemia protein C.
FANCD	:	Fanconi anemia protein D.
FEN١	:	Flap endonuclease ١.
G	:	Guanine.
G١ phase	:	A resting phase in the cell cycle proceeding the S phase.
G٢phase	:	Premitotic phase;Postsynthetic.
Gln	:	Glycine.
gm	:	Gram.
GPA	:	Erythrocyte glycophorin A.
Hb	:	Haemoglobin.
HLA-DR	:	Human leucocytes antigen DR loci in classII.
HNPCC	:	Hereditary non polyposis colon cancer.
HR	:	Homologous repair.
hrs	:	Hours.
HTLV١	:	Human T-cell lymphotropic virus.
Inv	:	Inversion.
IR	:	Ionizing radiation.
IV	:	Intravenous.
KCl	:	Potassium chloride.
Kda	:	Kilo Dalton.
L١	:	Acute lymphoblastic leukemia type ١.
L٢	:	Acute lymphoblastic leukemia type ٢.
L٣	:	Acute lymphoblastic leukemia type ٣.
L-Asp	:	L-Asparginase.

Lig I	**:**	Ligase I.
Lig III	**:**	Ligase II.
LN	**:**	Lymph node.
M٠	**:**	Acute myeloblastic leukemia minimallydifferentiated.
M١	**:**	Acute myeloblastic leukemia without maturation.
M٢	**:**	Acute myeloblastic leukemia with maturation.
M٣	**:**	Acute promyelocytic leukemia.
M٤	**:**	Acute myelomonocytic leukemia.
M٤E٦	**:**	Acute myelomonocytic leukemia with Eosinophils.
M٥a	**:**	Acute monoblastic leukemia without differentiation.
M٥b	**:**	Acute monoblastic leukemia with differentiation.
M٦	**:**	Acute erythroleukemia.
M٧	**:**	Megakaryocytic leukemia.
MDS	**:**	Myelodysplastic syndrome.
mEq	**:**	Milli equivalent.
Met	**:**	Methionine.
mg	**:**	Milligram.
$MgCl_2.6H_2O$	**:**	Magnesium chloride hexahydrate.
min	**:**	Minute.
MLH١:	**:**	DNA-mismatch repair protein.
MLL	**:**	Myeloid-lymphoid leukemia gene.
MMC	**:**	Mitomycin C.

MMR	:	Mismatch repair.
MoAb	:	Monoclonal antibody.
MPO	:	Myeloperoxidase.
MRE١١	:	Meiotic recombination ١١ homologue A.
MTX	:	Methotrexate.
Myc	:	Avian myelomytosis gene.
NaCl	:	Sodium chloride.
NAD+	:	Nicotinamide adenine dinucleotide.
NaF	:	Sodium fluoride.
NaHCO٣	:	Sodium bicarbonate.
NBS	:	Nijmegan breakage syndrome.
NER	:	Nucleotide excision repair.
NHEJ	:	Nonhomologous end joining repair.
NOS	:	Not otherwise categorized.
np	:	Nucleotide pairs.
NTD	:	N-terminal domain.
N-terminal	:	NH٢ terminal aminogroup terminal·
OGG١	:	٨-oxoguanine DNA glycosylase
P arm	:	Upper short arm of the chromosome.
P٥٣	:	Tumor suppressor gene.
PARP	:	Poly (ADP-ribose); poly adiporibose polymerase.
PAS	:	Periodic acid Schiff.
PB	:	Peripheral blood.
PCNA	:	Proliferating cell nuclear antigen.
PCR	:	Polymerase chain reaction.
PML	:	Promyelocytic leukemia.

PML-RARAα	:	Fusion protein disrupt proliferation and differentiation in M٣-RARA; retinoic acid receptor.
PNK	:	Polynucleotide kinase.
PO	:	Per arum.
PO٤	:	Phosphate group.
Pol β	:	DNA polymerase b.
PR	:	Partial remission.
q arm	:	Lower long arm of the chromosome.
R	:	Refractory to treatment.
Rad ٥٢	:	Recombination protein Rad ٥٢.
RAS	:	Oncogene protein.
RF-C	:	Replication factor C.
RFLP	:	Restriction fragment length polymorphism.
ROS	:	Reactive oxygen species.
RPA	:	Replication protein A.
RT-PCR	:	Reverse transcriptase polymerase chain reaction.
S phase	:	DNA synthesis phase of the cell cycle.
SCE	:	Sister chromatid exchange.
SDS	:	Sodium dodecyl sulphate.
sIgμ	:	Surface immunoglobulin μ.
sIgκ	:	Surface immunoglobulin κ.
sIgλ	:	Surface immunoglobulin λ.
SPSS	:	Statistical package for social science.
SSBR	:	Single strand break repair.
SSBs	:	Single strand breaks.

T	:	Thymine.
t	:	Translocation.
TAR	:	Thrombocytopenia absent radii.
TdT	:	Terminal deoxynucleotidyl transferase.
TE	:	Tris EDTA.
TFIIH	:	General transcription factor II H.
TLC	:	Total leucocytic count.
Trp	:	Tryptophan.
UV	:	Ultra violet.
V (D) J	:	Variable-diversity-joining segment rearrangement of heavy chain in immunoglobulin gene.
VB١٢	:	Vitamin B١٢.
VCR	:	Vincristine.
VP-١٦	:	Etoposide.
WHO	:	World Health Organization.
XP	:	Xeroderma pigmentosum.
XPC	:	Xeroderma pigmentosum, group C.
XPD	:	Xeroderma pigmentosum, group D.
XPF	:	Xeroderma pigmentosum, group F.
XPG	:	Xeroderma pigmentosum, group G.
XRCC١	:	X-ray cross complementing defective repair in Chinese hamster cells ١.
δ–pol	:	Polymerase delta.
ε–pol	:	Polymerase epsilon.

** List of figures:

** List of Tables: