

**Supplementary material to**  
**“Cooperation and interplay between base and nucleotide excision repair**  
**pathways: From DNA lesions to proteins”**

**Table S1** - All BER X NER interactions found in the interactome.

Source protein	Interacting partners
<b>RAD23B</b>	DDB2 RPA3 ERCC1 GTF2H2 CDK7 DDB1 GTF2H4 RBX1 RPA1 GTF2H1 XPC MPG CSA XPG XPF XPB
<b>LIG1</b>	RBX1 GTF2H4 CDK7 RPA3 RPA1 POLK APEX1
<b>GTF2H1</b>	GTF2H4 CDK7 DDB2 RPA3 LIG1 POLK RBX1 XRCC1 ERCC1 RPA1 CSA POLD3

Source protein	Interacting partners
XPA	RPA3 CETN2 GTF2H4 RBX1 PARP1 GTF2H2 CDK7 POLE POLK XAB2 RAD23B DDB1 DDB2 RPA1 XPC RPA2 GTF2H1 ERCC1 CSB CSA XPB XPG XPF POLD4 POLD3
CDK7	POLK ERCC1 RBX1 RPA1 RPA3
XRCC1	RBX1 CDK7 GTF2H4 RPA3 POLK RPA1 APEX1
LIG3	PARP1 GTF2H4 GTF2H2 DDB1 RBX1 GTF2H1 CDK7 RPA3 CUL4A POLK POLE RPA2

Source protein	Interacting partners
	XAB2 RPA1 XRCC1 CSA NEIL2 XPB PNKP FEN1 NEIL1 POLB POLD4 POLD3
RPA1	RPA3 RBX1 POLK ERCC1 APEX1
XAB2	RPA3 ERCC1 RBX1 POLK RPA1 GTF2H2 LIG1 CDK7 POLE GTF2H1 GTF2H4 DDB1 XRCC1 XPB XPG XPF CSA POLD4 POLD3
RPA3	RBX1 ERCC1 APEX1
RPA2	RPA3 RPA1 POLK XAB2 RAD23B GTF2H2 RBX1 GTF2H4 DDB1 POLE

Source protein	Interacting partners
	<p>XRCC1  ERCC1  DDB2  GTF2H1  LIG1  CETN2  XPC  PARP1  CDK7  UNG  POLB  XPF  CSA  XPB  XPG  APEX1  FEN1  POLD4  POLD3</p>
<p>POLE</p>	<p>GTF2H4  DDB2  CDK7  RBX1  GTF2H1  RPA3  XRCC1  ERCC1  POLK  DDB1  RPA1  LIG1  CSA  XPB  POLB  APEX1  XPF  FEN1  POLD4  POLD3</p>

Source protein	Interacting partners
GTF2H5	GTF2H3 GTF2H4 XRCC1 LIG1 XPA PCNA CUL4A POLK XPC DDB1 PARP1 DDB2 RFC1 LIG3 XAB2 RPA1 POLE RPA2 ERCC1 CETN2 RAD23B RBX1 RPA3 CDK7 XPD GTF2H2 GTF2H1 XPF CSA XPG XPB POLD4 POLD3 POLD1

Source protein	Interacting partners
<p style="text-align: center;">GTF2H3</p>	<p>GTF2H4                      XPD                      GTF2H2                      GTF2H1                      XPA                      PARP1                      XRCC1                      RAD23B                      LIG1                      RBX1                      POLK                      CUL4A                      RFC1                      LIG3                      POLE                      ERCC1                      XAB2                      DDB1                      DDB2                      CETN2                      PCNA                      RPA3                      RPA2                      RPA1 XPC                      CDK7                      XPG                      CSA                      XPF                      XPB                      POLD4                      POLD3                      POLD1</p>
<p style="text-align: center;">XPD</p>	<p>GTF2H2                      GTF2H1                      RPA3                      DDB2                      CETN2                      RPA2                      CUL4A                      RBX1                      ERCC1                      RAD23B                      LIG3                      RPA1                      PARP1                      XRCC1                      POLK XPC                      POLE                      XAB2                      DDB1</p>

Source protein	Interacting partners
	XPA LIG1 PCNA RFC1 GTF2H4 CDK7 POLD4 POLD3
DDB2	CDK7 ERCC1 RPA3 POLK RPA1 RBX1
GTF2H2	GTF2H1 GTF2H4 RPA3 XRCC1 ERCC1 POLK LIG1 DDB2 RPA1 RBX1 POLE XPC DDB1 CDK7 XPF CSA XPB POLD4 POLD3
RFC1	DDB2 GTF2H4 XPA POLK GTF2H1 XRCC1 RBX1 CUL4A DDB1 GTF2H2 RPA3 XAB2 ERCC1 CDK7 PARP1 RPA2

Source protein	Interacting partners
	LIG3 RPA1 POLE LIG1 PCNA POLB CSA XPB APEX1 XPF XPG FEN1 POLD4 POLD3
GTF2H4	RPA3 ERCC1 POLK RPA1 RBX1 DDB2 CDK7
XPC	RPA3 RBX1 ERCC1 CDK7 GTF2H4 DDB2 RPA1 GTF2H1 POLB CSA
CETN2	PARP1 GTF2H1 DDB2 CDK7 ERCC1 RPA1 GTF2H4 DDB1 RPA3 GTF2H2 RBX1 RAD23B XPC POLB CSA XPB XPG XPF



Source protein	Interacting partners
<p style="text-align: center;">PCNA</p>	<p>LIG1                      RAD23B                      DDB2                      GTF2H1                      ERCC1                      XAB2                      GTF2H4                      GTF2H2                      CDK7                      DDB1                      XPA                      RBX1                      XRCC1                      CUL4A                      PARP1                      LIG3                      POLK                      RPA3                      POLE                      RPA2                      RPA1                      NEIL3                      CSB                      MUTYH                      XPB                      CSA                      XPF                      UNG                      APEX1                      XPG                      POLB                      FEN1                      POLD4                      POLD3</p>
<p style="text-align: center;">RBX1</p>	<p>ERCC1</p>
<p style="text-align: center;">DDB1</p>	<p>XRCC1                      GTF2H1                      POLK                      RPA3                      CDK7                      RPA1                      GTF2H4                      ERCC1                      LIG1                      XPC                      RBX1                      DDB2                      APEX1                      UNG                      XPB</p>

Source protein	Interacting partners
	CSA POLD3
CUL4A	RPA3 XPA GTF2H2 POLE CDK7 XPC RPA2 PARP1 CETN2 XRCC1 ERCC1 GTF2H1 RPA1 POLK XAB2 GTF2H4 RAD23B LIG1 DDB2 RBX1 DDB1 XPF XPB XPG CSA POLD4 POLD3
POLK	RPA3 RBX1 ERCC1
PARP1	XRCC1 GTF2H2 GTF2H1 CDK7 POLE RBX1 GTF2H4 POLK ERCC1 DDB1 RAD23B RPA3 RPA1 DDB2 XPC CSB XPF XPB

Source protein	Interacting partners
	XPG APEX1 FEN1 POLB POLD4 POLD3
MUTYH	POLE RPA1 APEX1
CSB	OGG1 XPF XPG
SMUG1	APEX1
MBD4	APEX1
MPG	APEX1
NEIL2	XRCC1 POLB
TDG	PCNA APEX1
OGG1	XPC NEIL2 APEX1
NTHL1	APEX1
NEIL1	NEIL2 OGG1 PNKP XRCC1 POLB
PNKP	NEIL2 POLB XRCC1
PARG	PCNA POLB APEX1 FEN1 PARP1
POLB	RPA1 RPA3 LIG1 APEX1 XRCC1 POLD3
CSA	POLK ERCC1

Source protein	Interacting partners
	XRCC1 RPA1 GTF2H4 RPA3 LIG1 CDK7 DDB2 RBX1 POLD3
XPF	XRCC1 NTHL1 DDB2 RPA3 CSA RBX1 DDB1 GTF2H4 CDK7 XPB POLK RPA1 GTF2H1 XPC ERCC1 POLD3
XPG	NTHL1 CSA RBX1 DDB2 XPC RPA3 DDB1 POLK POLE RPA1 XPF GTF2H4 CDK7 ERCC1 XPB GTF2H1 GTF2H2 POLD4 POLD3
XPB	XRCC1 RPA3 ERCC1 CSA DDB2

Source protein	Interacting partners
	RBX1 POLK RPA1 LIG1 XPC GTF2H1 CDK7 GTF2H4 POLD3
FEN1	UNG ERCC1 XRCC1 POLB APEX1 RPA1 RPA3 LIG1 POLD3
POLD2	FEN1 DDB2 XPA GTF2H5 GTF2H3 CUL4A GTF2H2 RBX1 GTF2H1 ERCC1 DDB1 CDK7 POLK GTF2H4 XPD RPA3 XRCC1 XAB2 PARP1 LIG3 RFC1 RPA2 LIG1 POLE RPA1 PCNA UNG MUTYH CSA XPB POLB XPF

Source protein	Interacting partners
	<p>APEX1 XPG POLD4 POLD3 POLD1</p>
<p>POLD4</p>	<p>DDB2 CDK7 LIG1 XRCC1 POLK GTF2H4 RPA3 GTF2H1 DDB1 RBX1 ERCC1 RPA1 POLB APEX1 FEN1 XPB CSA XPF POLD3</p>
<p>POLD3</p>	<p>APEX1 GTF2H4 ERCC1 CDK7 DDB2 RBX1 RPA3 XRCC1 RPA1 LIG1 POLK</p>

Source protein	Interacting partners
<p style="text-align: center;">POLD1</p>	<p>RPA1  POLD3  PCNA  CETN2  RBX1  GTF2H2  CUL4A  DDB2  RAD23B  GTF2H1  CDK7  GTF2H4  XPD  MUTYH  DDB1  CSB  PARP1  CSA  XPA  XPB  XPC  POLB  ERCC1  APEX1  XAB2  XPG  LIG3  XPF  FEN1  XRCC1  POLK  RFC1  RPA2  LIG1  POLD4  POLE  RPA3</p>
<p style="text-align: center;">XAB2</p>	<p>CCNH  MNAT1</p>
<p style="text-align: center;">PARP1</p>	<p>MNAT1  CCNH</p>
<p style="text-align: center;">RAD23B</p>	<p>CCNH  MNAT1</p>
<p style="text-align: center;">XPA</p>	<p>MNAT1  CCNH</p>
<p style="text-align: center;">POLD4</p>	<p>CCNH  MNAT1</p>

Source protein	Interacting partners
XRCC1	MNAT1 CCNH
LIG3	CCNH MNAT1
POLE	CCNH MNAT1
DDB2	CCNH
RFC1	MNAT1 CCNH
XPC	MNAT1 CCNH
CETN2	MNAT1 CCNH
DDB1	MNAT1 CCNH
CUL4A	CCNH MNAT1
POLD1	MNAT1 CCNH
POLD2	MNAT1 CCNH
POLD3	MNAT1 CCNH
GTF2H4	CCNH
RPA2	MNAT1 CCNH
MNAT1	DDB2 POLK ERCC1 RPA1 RPA3 RBX1 GTF2H4 CCNH CDK7
LIG1	MNAT1 CCNH
PCNA	CCNH MNAT1
GTF2H5	MNAT1 CCNH
GTF2H1	MNAT1 CCNH



Source protein	Interacting partners
GTF2H3	MNAT1 CCNH
CCNH	POLK ERCC1 RBX1 RPA1 RPA3 CDK7
GTF2H2	MNAT1 CCNH