

**A.**

Xenopus	MTQD YDNKR PVLVLQNDGLYQQRRSYTN EDEAWKSFLENPLTAAATKAMMS	50
Human	MTQEYDNKR PVLVLQNEALYPQRRSYTS EDEAWKSFLENPLTAAATKAMMS	50
Mouse	MTQEYDNKR PVLVLQNEALYPQRRSYTS EDEAWKSFLENPLTAAATKAMMS	50
Xenopus	INGDEDSAAALGLLYDYKVPREERRLSAAKQEHDHADHEHSKRNGLPQIN	100
Human	INGDEDSAAALGLLYDYKVPREERRSS T AKPEVEHPEPE D HSKRNSIPIVT	100
Mouse	INGDEDSAAALGLLYDYKVPREERRSS AVKPEGEHPEPEHSKRNSIPNV T	100
Xenopus	EQALLP - -DNRVQVLKTVPFNIVVPLA NQ - -VDKRGHLTT PDTTAAAVSIA	146
Human	EQPLISAGENRVQVLKNVPFNIVLPHG NQLGIDKRGHLTAPDTTVTV SIA	150
Mouse	EQPLISAGENRVQVLKNVPFNIVLPHS NQLGIDKRGHLTAPDTTVTV SIA	150
Xenopus	- - - HPIKTES QSHCF SVGLQS - VFHT EPTERI VAFDRAVPSDHFITSN NQ	191
Human	TMPTHSIKTEET QPHGF AVGIPPAVYHP EPTERVVVFDRN LNTDQFSSGA Q	200
Mouse	TMPTHSIKTEI QPHGF AVGIPPAVYHS EPTERVVVFDRS LST DQFSSGT Q	200
Xenopus	PPNSQRRRTPDSTFSETYKEDVPEVFFFP PDL SLR MGSMNSEDYVFD SVAGN	241
Human	APNAQRRTPDSTFSETFKEGVQEVFFPS DL SLR MPMNSEDYVFD SVSGN	250
Mouse	PPNAQRRTPDSTFSETFKEGVQEVFFPS E L SLR MPMNSEDYVFD NVSGN	250
Xenopus	NFEY TLEASKSLR PKPGDSTMTYLNKGQFYPI TLKEI GSNKGIHHPISKV	291
Human	NFEY TLEASKSLR QKPGDSTMTYLNKGQFYPI TLKEV SSS EGIHHPISKV	300
Mouse	NFEY TLEASKSLR QK QGDSTMTYLNKGQFYPI VTLKEG S SNEG I HHPISKV	300
Xenopus	RSVIMVVFADDKSREDQLRHWKYWHSRQHTAKQRCIDIADYKESFNTISN	341
Human	RSVIMVVF AEDKSREDQLRHWKYWHSRQHTAKQRCIDIADYKESFNTISN	350
Mouse	RSVIMVVF AEDKSREDQLRHWKYWHSRQHTAKQRCIDIADYKESFNTISN	350
Xenopus	IEEIAYN AISFTWDL NDEGKVFISV NCLSTDFSSQKGVKGLPLNL QIDTY	391
Human	IEEIAYN AISFTWDI NDEAKVFI SV NCLSTDFSSQKGVKGLPLNI QV DTY	400
Mouse	IEEIAYN AISFTWDI NDEAKVFI SV NCLSTDFSSQKGVKGLPLNI QIDTY	400
Xenopus	SYNNRSNKPVHRAYCQIKVFCDKGAERKIRDEERKQS KRKV QDVKVGLL P	441
Human	SYNNRSNKPVHRAYCQIKVFCDKGAERKIRDEERKQS KRKVSDVKV P L L P	450
Mouse	SYNNRSNKPVHRAYCQIKVFCDKGAERKIRDEERKQS KRKVSDVKV Q L L P	450
Xenopus	THKRTDITVFKPMM DLDLTQPVLFI PDVHFANLQR T THVLPISPEDEMEGEL	491
Human	SHKRM DITVFKPFI DLDLTQPVLFI PDVHFANLQRGTHVLPISA SEELEGE -	499
Mouse	SHKRTDITVFKPFL DLDLTQPVLFI PDVHF TNLQRGS SHVLSL PSEELEGE -	499
Xenopus	NPGMKRLPFSPEEDFNTPP - AKLP RVD EPKRVLLYVRRET EEFVDALMLK	540
Human	GSV LKRG P YGTEDDFAVPPS T KLA RIEEPKRVLLYVRKESEEFVDALMLK	549
Mouse	GSV LKRG PFGTEDDFGVPP PAKL T RT EEPKRVLLYVRKESEEFVDALMLK	549
Xenopus	TPTL KGLMEAVSEKYEVP I EKI GKI FKKCKKGI L VNMDDNI I KHYSNEDT	590
Human	TPSL KGLMEAI SDKYDVP HDKI GKI FKKCKKGI L VNMDDNI VKHYSNEDT	599
Mouse	TPSL KGLMEAI SDKYDVP HDKI GKI FKKCKKGI L VNMDDNI VKHYSNEDT	599
Xenopus	FHLQIEESGGSYKLT L TEI	609
Human	FQLQIEEAGGSYKLT L TEI	618
Mouse	FQLQIEEAGGSYKLT L TEI	618

Supplementary  
Figure 1  
Tao et al.

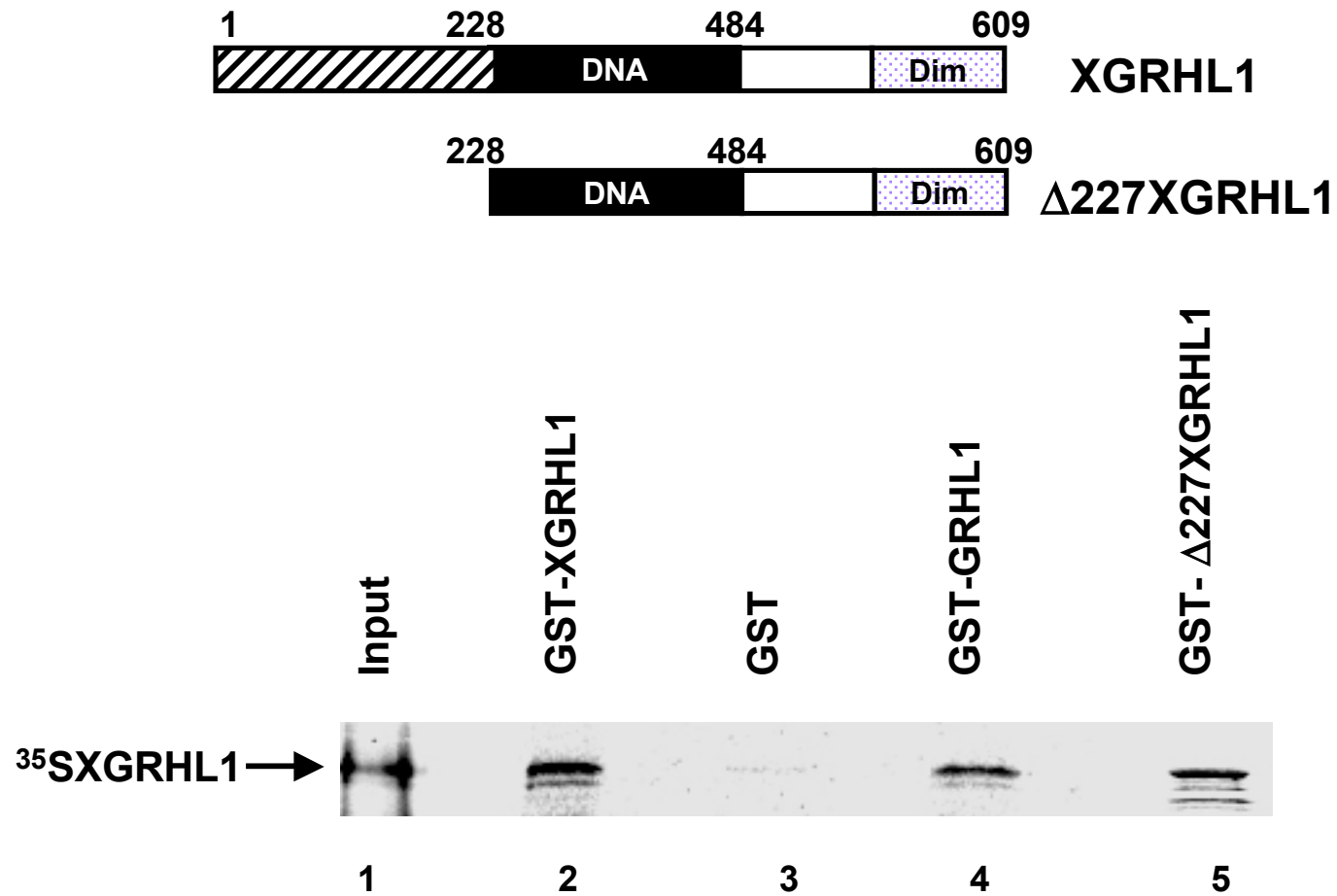
## B.

<b>Full Length Factor</b>	<b>hGRHL1</b>	<b>mGRHL1</b>	<b>dGRH</b>	<b>ceGRH</b>
<b>Identity (%)</b>	<b>82</b>	<b>82</b>	<b>34</b>	<b>34</b>
<b>Similarity(%)</b>	<b>87</b>	<b>87</b>	<b>42</b>	<b>44</b>

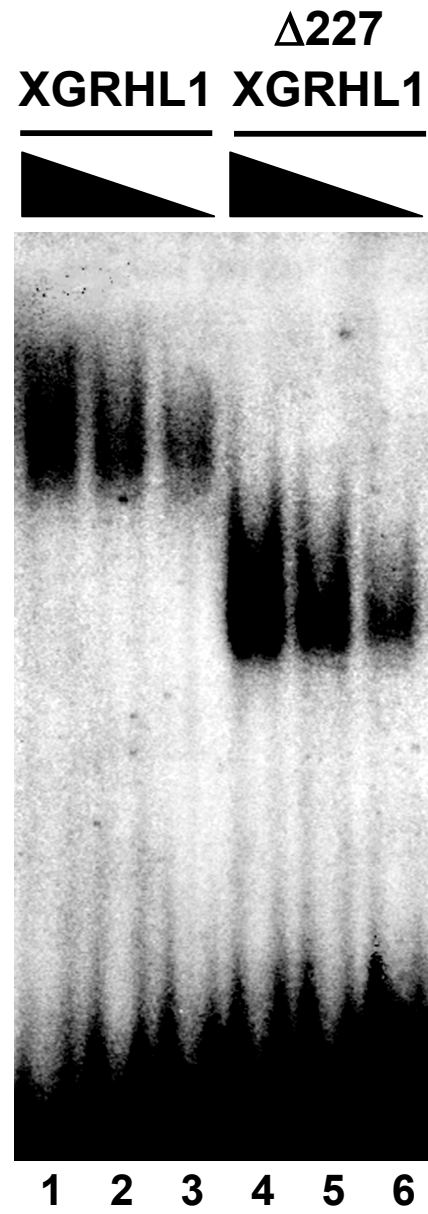
<b>DNA binding domain</b>	<b>hGRHL1</b>	<b>mGRHL1</b>	<b>dGRH</b>	<b>ceGRH</b>
<b>Identity(%)</b>	<b>96</b>	<b>99</b>	<b>57</b>	<b>57</b>
<b>Similarity(%)</b>	<b>99</b>	<b>97</b>	<b>67</b>	<b>69</b>

<b>Dimer domain</b>	<b>hGRHL1</b>	<b>mGRHL1</b>	<b>dGRH</b>	<b>ceGRH</b>
<b>Identity(%)</b>	<b>85</b>	<b>85</b>	<b>41</b>	<b>38</b>
<b>Similarity(%)</b>	<b>93</b>	<b>92</b>	<b>54</b>	<b>56</b>

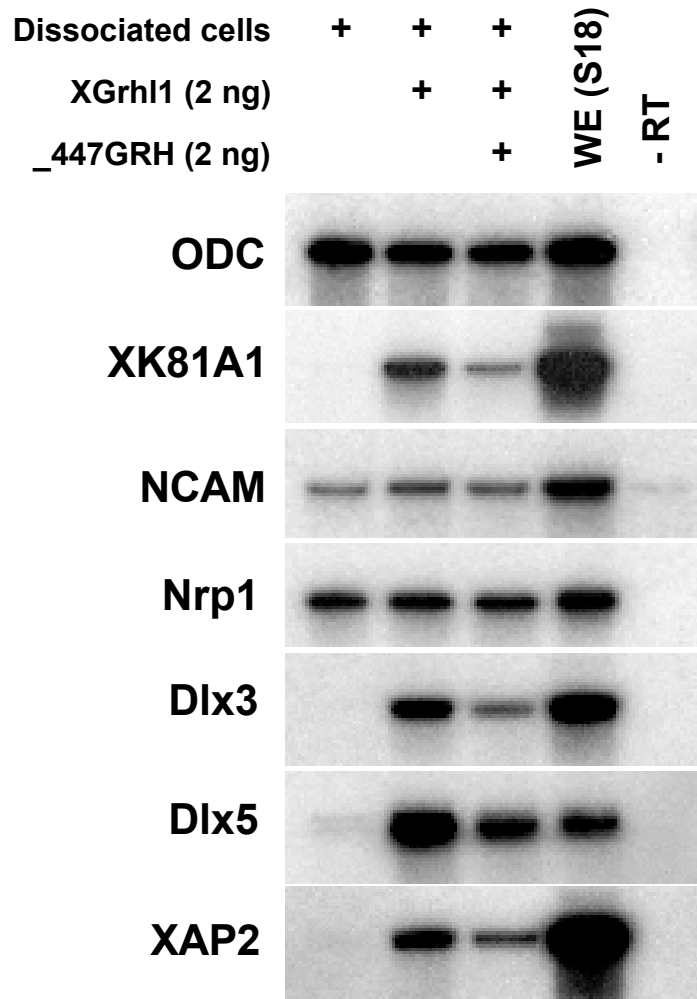
**A.**



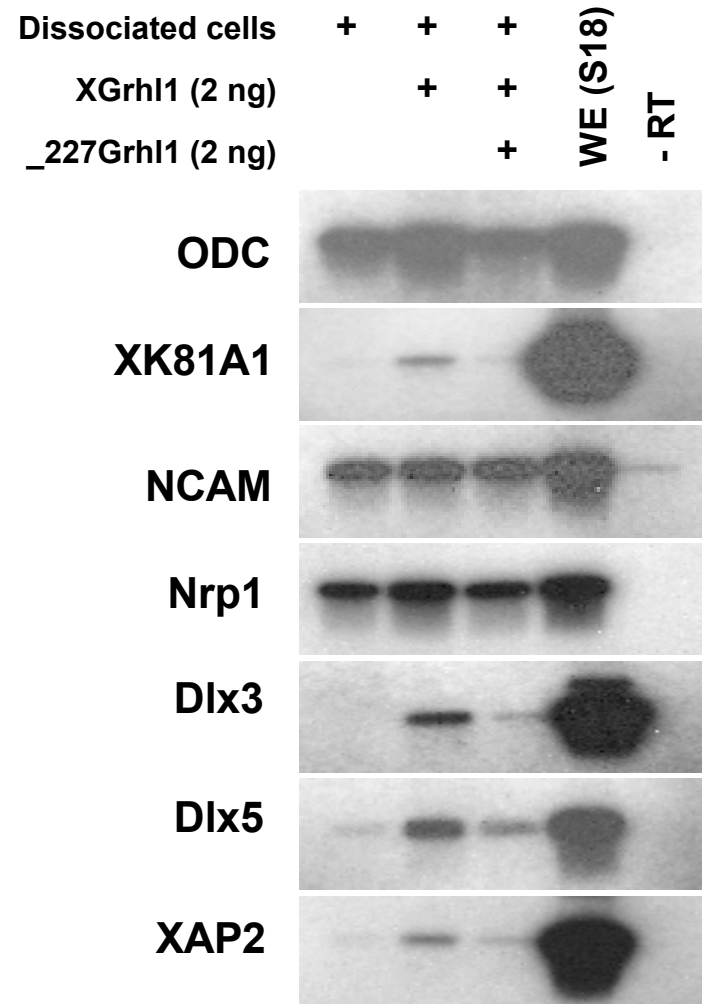
**B.**



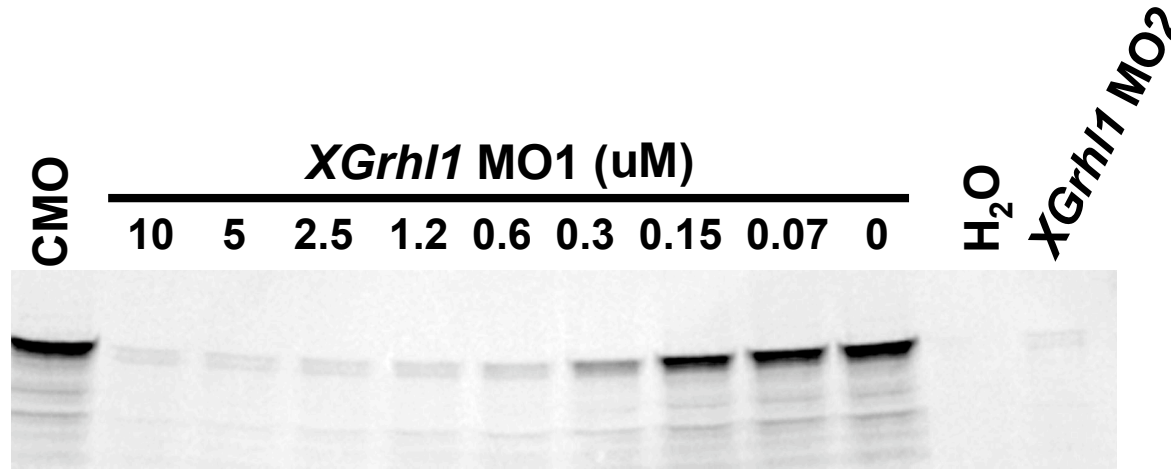
**C.**



**D.**



**A.**



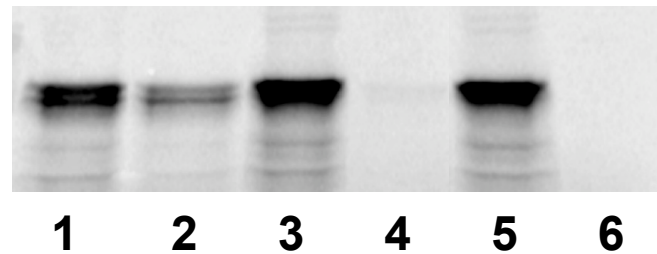
**B.**

Wt XGrhl1 mRNA    AUGACACAAGACUACGACAAUAAAC

M- XGrhl1 mRNA    AUGACACAGGAUUAUGAUACAAGC

M   T   Q   D   Y   D   N   K

	<i>M-XGr</i>		<i>WtXGr</i>		<i>Wt XGr</i>	H <sub>2</sub> O
<b>CMO</b>	+	-	+	-	-	-
<b>XGrhl1 MO</b>	-	+	-	+	-	-





**C.**

