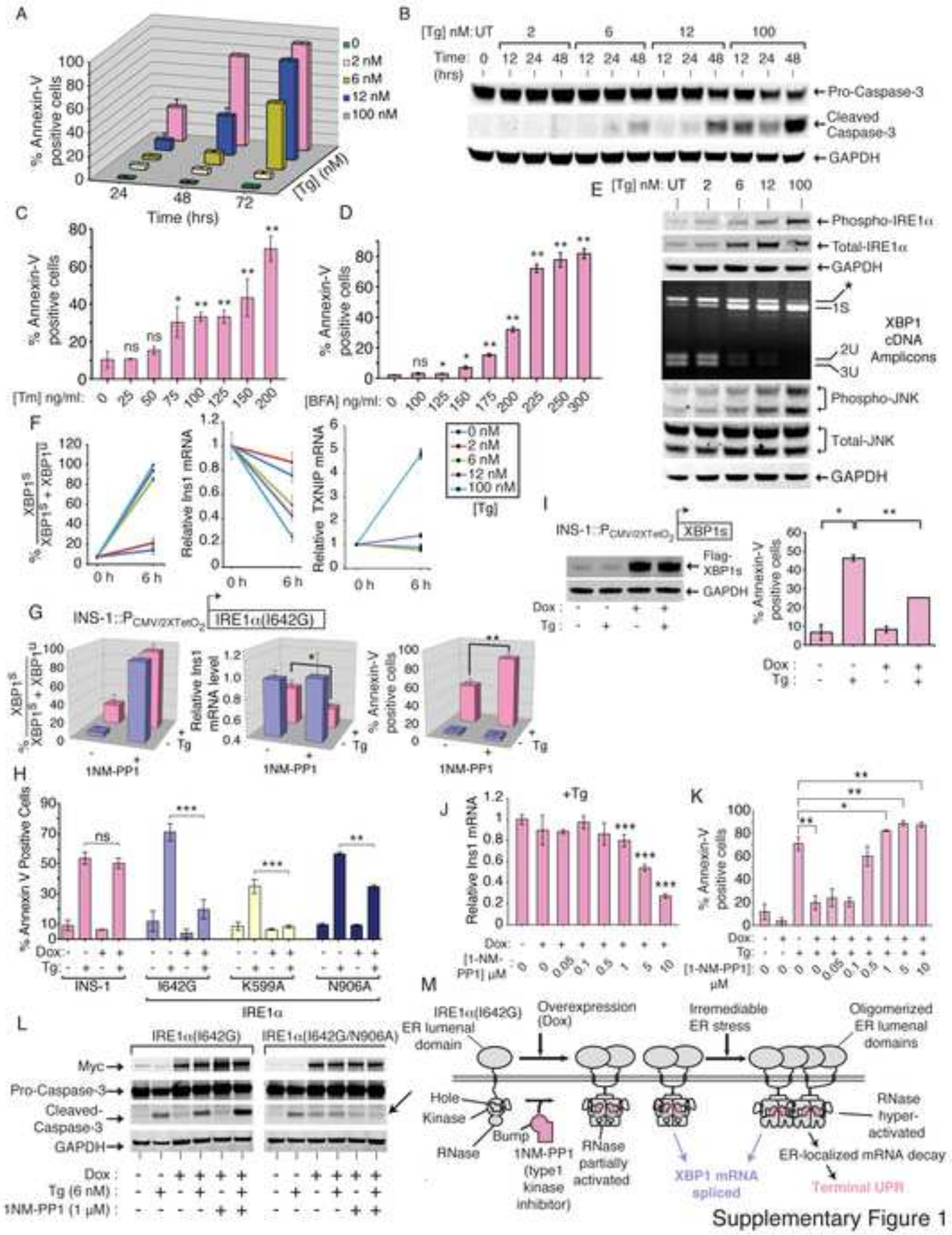
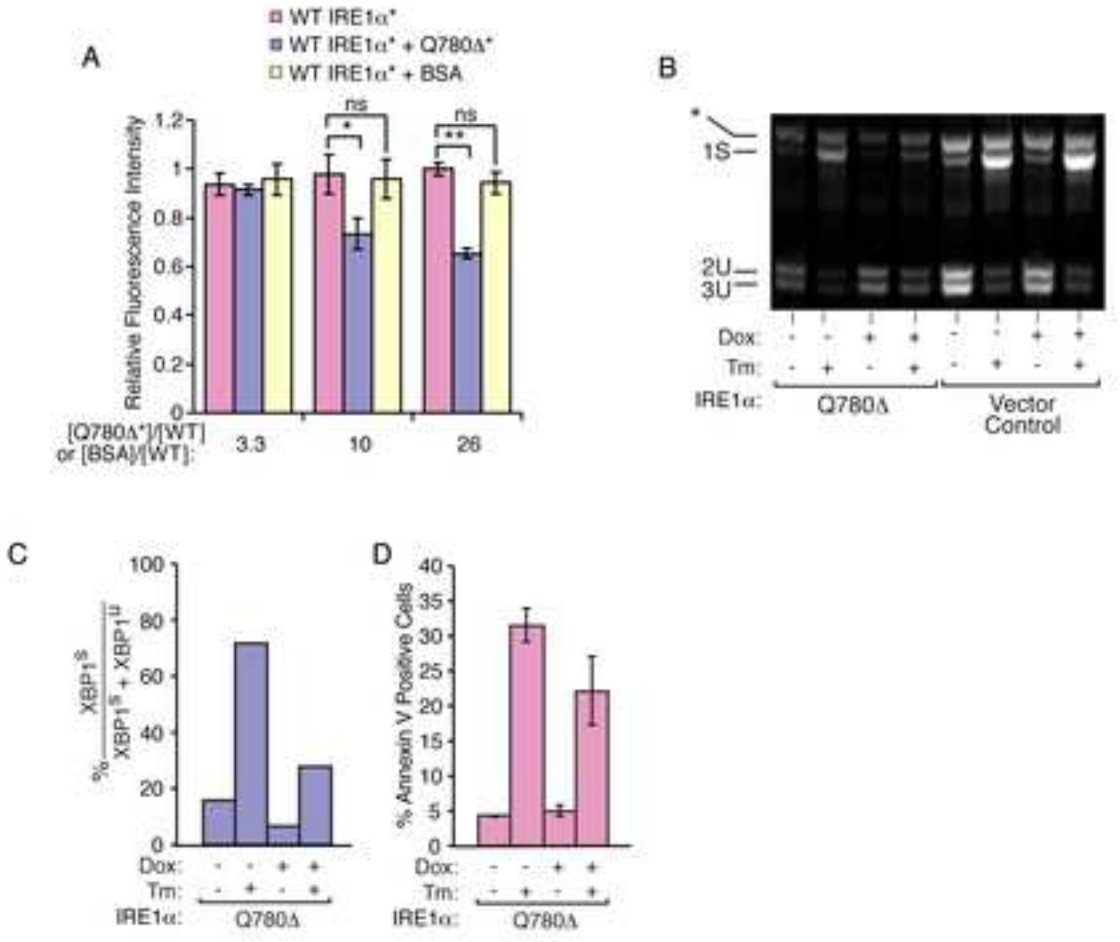
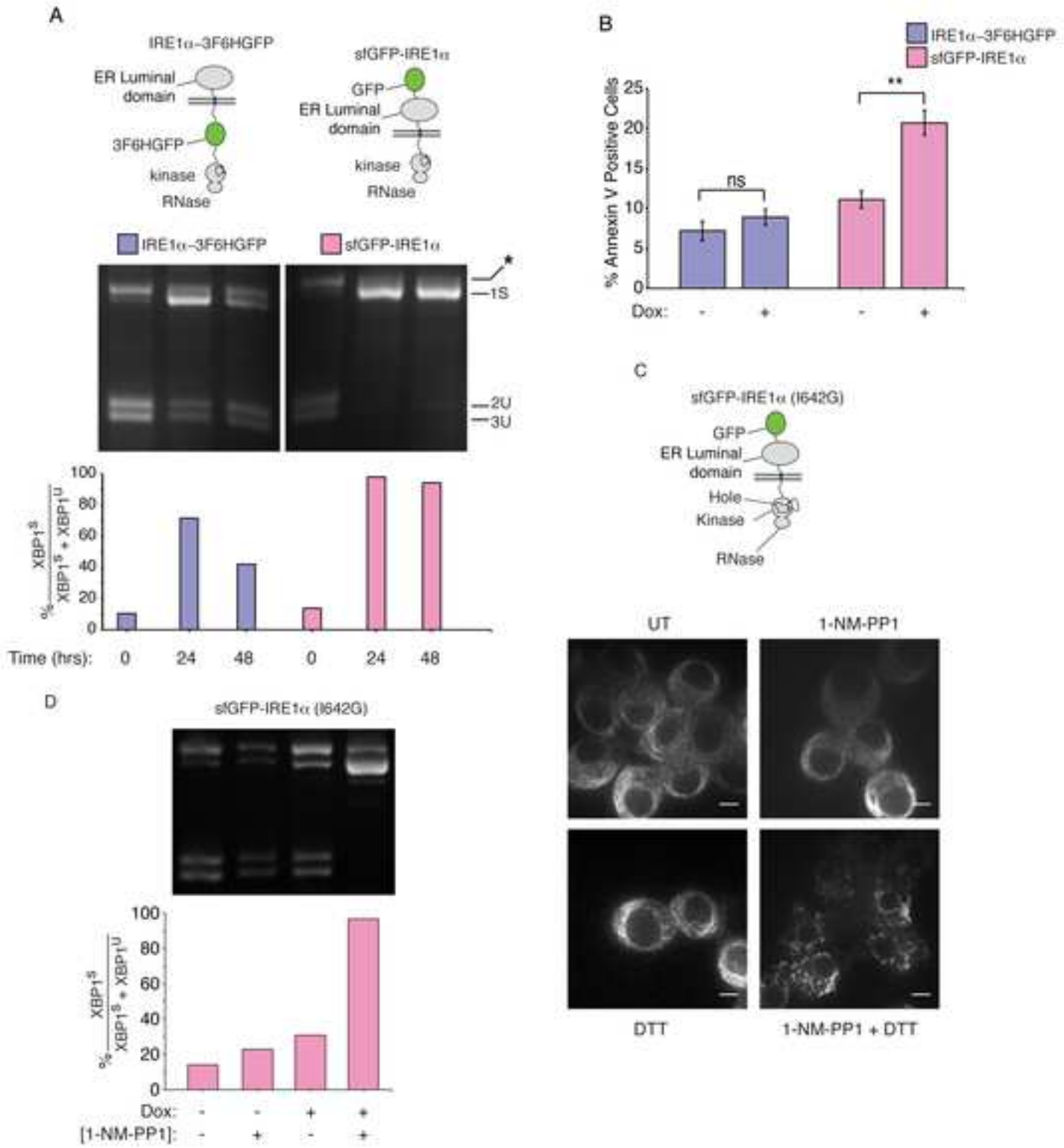
Supplemental Figure 1



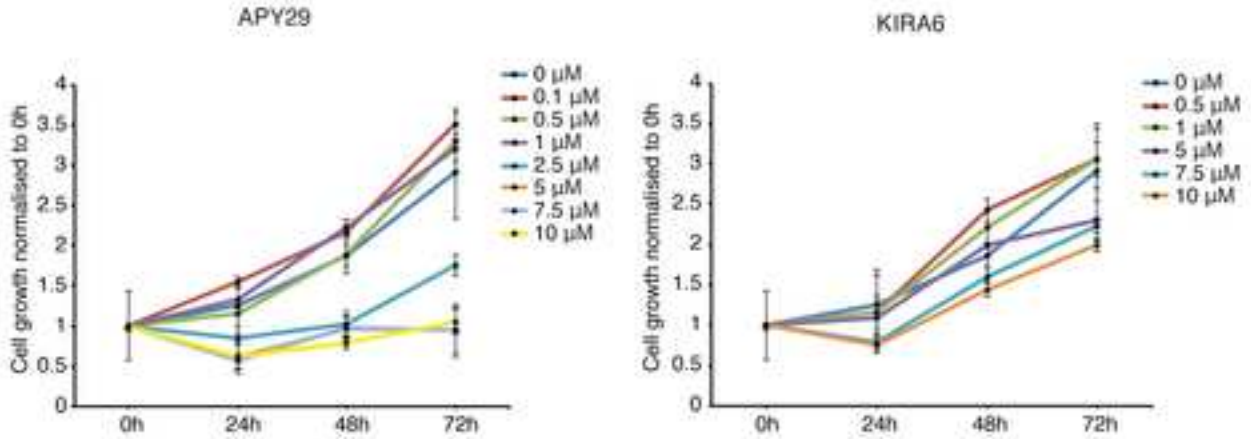
Supplementary Figure 1


A
WT IRE1α*
WT IRE1α* + Q780Δ*
WT IRE1α* + BSA
Relative Fluorescence Intensity
ns
*
ns
**
[Q780Δ*]/[WT]
or [BSA]/[WT]:
3.3
10
26
B
*
1S
2U
3U
Dox:
Tm:
IRE1α:
Q780Δ
Vector
Control
C
Dox:
Tm:
IRE1α:
Q780Δ
D
% Annexin V Positive Cells
Dox:
Tm:
IRE1α:
Q780Δ

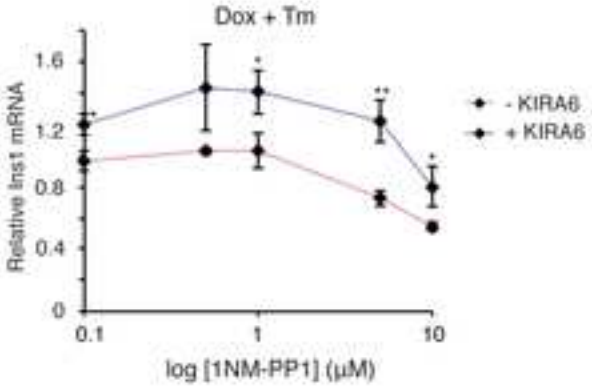


Supplementary Figure 3

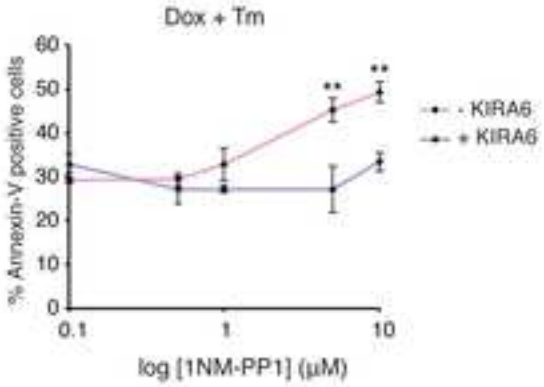
A



B



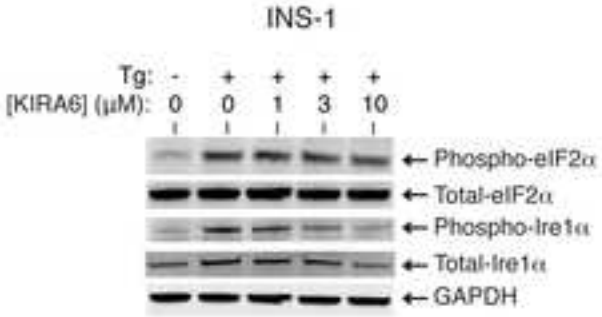
C

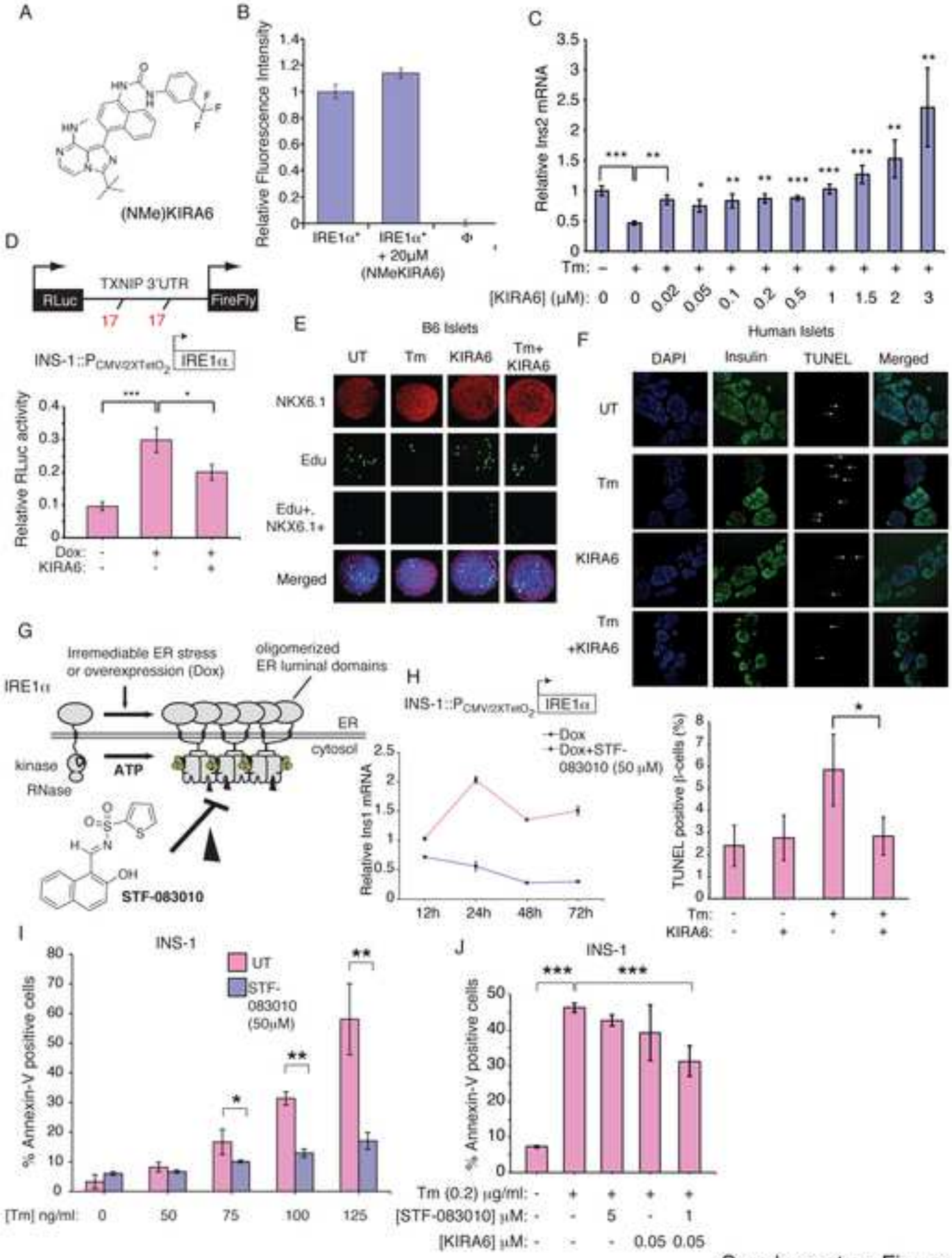


D

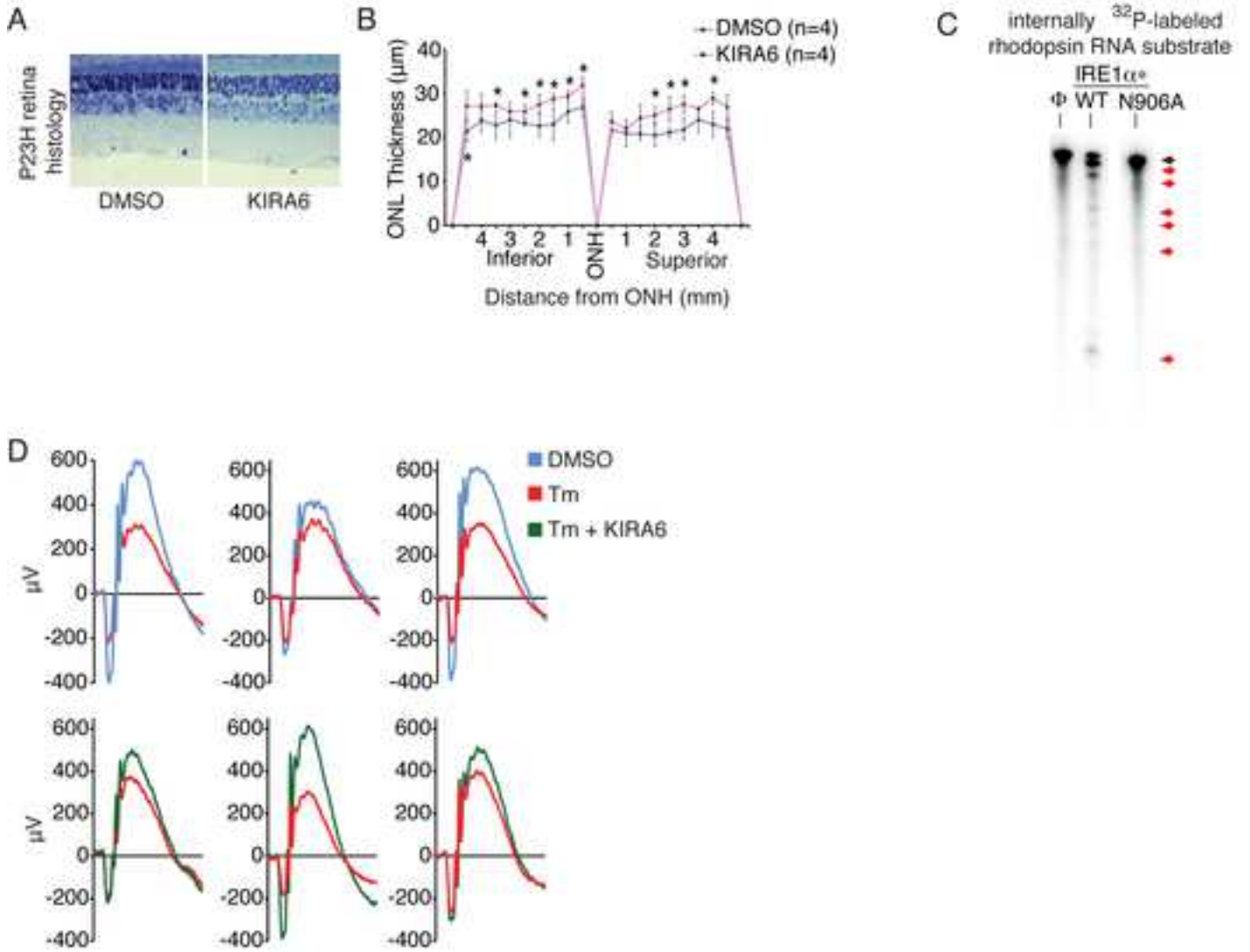
kinase	IC_{50}
IRE1α*	0.60μM
Erk2	> 10μM
JNK2	> 10μM
JNK3	> 10μM
Pim1	> 10μM
Pak4	> 10μM
PKA	> 10μM

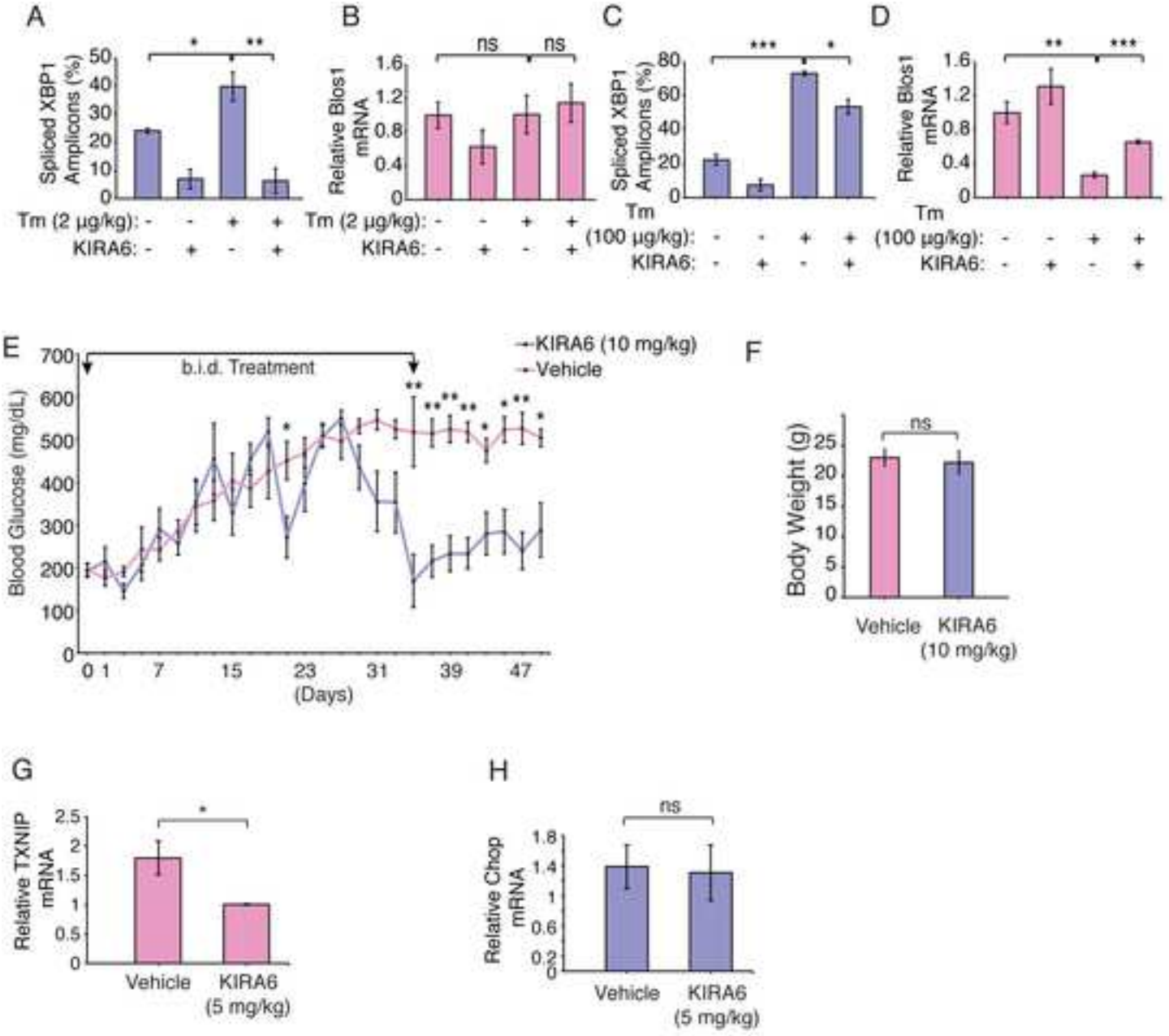
E





Supplementary Figure 5


A
P23H retina histology
DMSO
KIRA6
B
DMSO (n=4)
KIRA6 (n=4)
ONL Thickness (µm)
40
30
20
10
0
4 3 2 1
Inferior
ONH
1 2 3 4
Superior
Distance from ONH (mm)
C
internally 32P-labeled rhodopsin RNA substrate
IRE1α*
Φ WT N906A
D
DMSO
Tm
Tm + KIRA6
µV
600
400
200
0
-200
-400


A
Spliced XBP1 Amplicons (%)
Tm (2 µg/kg): - - + +
KIRA6: - + - +
B
Relative Blos1 mRNA
ns ns
Tm (2 µg/kg): - - + +
KIRA6: - + - +
C
Spliced XBP1 Amplicons (%)
Tm (100 µg/kg): - - + +
KIRA6: - + - +
D
Relative Blos1 mRNA
Tm (100 µg/kg): - - + +
KIRA6: - + - +
E
b.i.d. Treatment
KIRA6 (10 mg/kg)
Vehicle
Blood Glucose (mg/dL)
(Days)
F
Body Weight (g)
ns
Vehicle
KIRA6 (10 mg/kg)
G
Relative TXNIP mRNA
Vehicle
KIRA6 (5 mg/kg)
H
Relative Chop mRNA
ns
Vehicle
KIRA6 (5 mg/kg)