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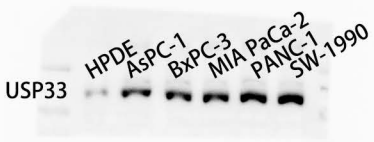
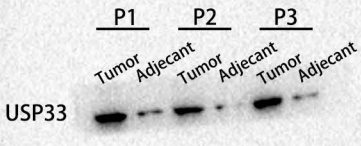


Fig1E

Fig1H



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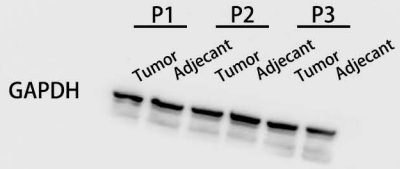

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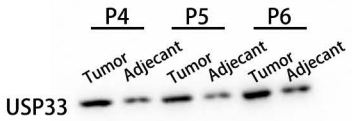

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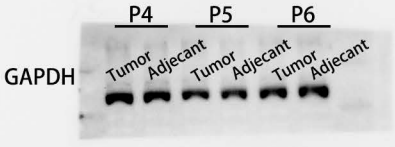

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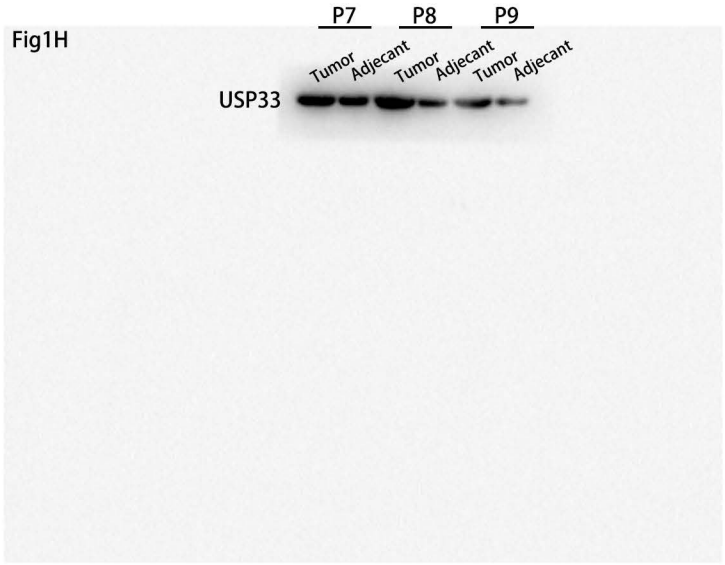

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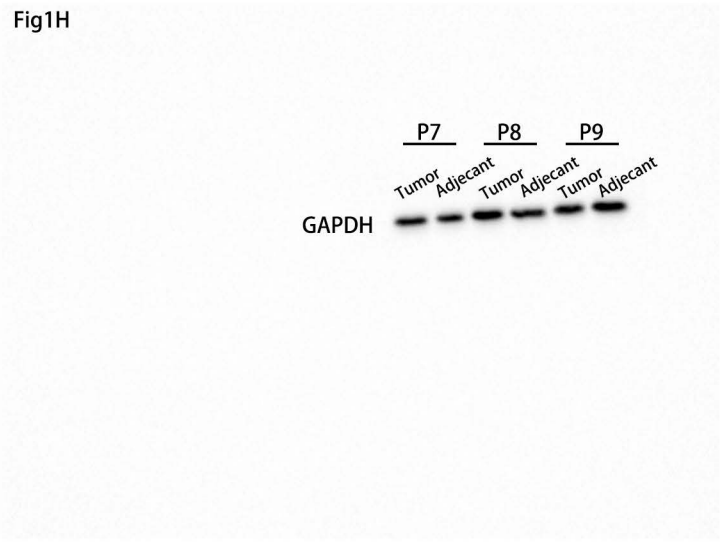

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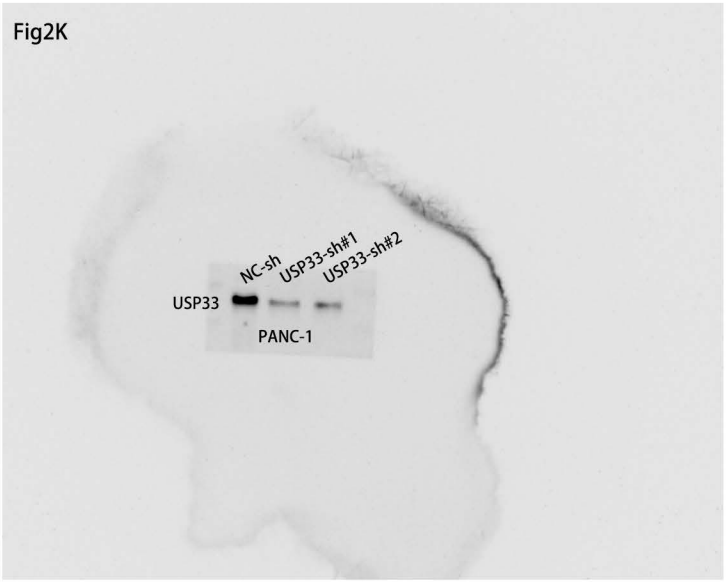

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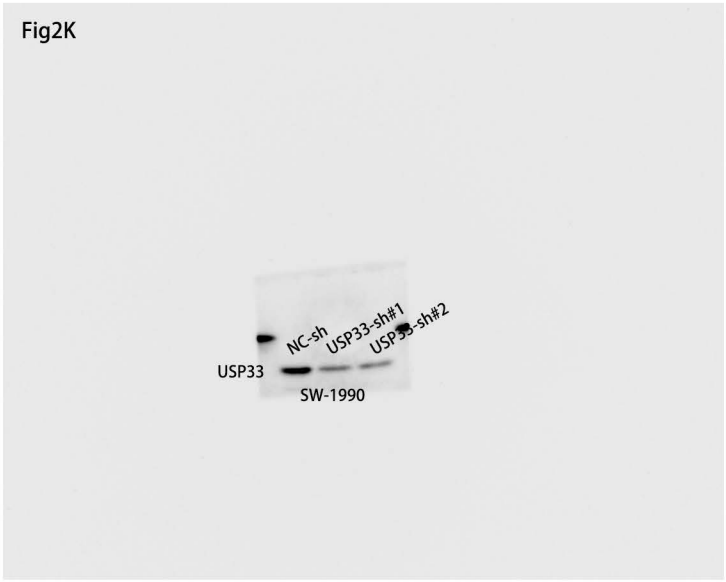

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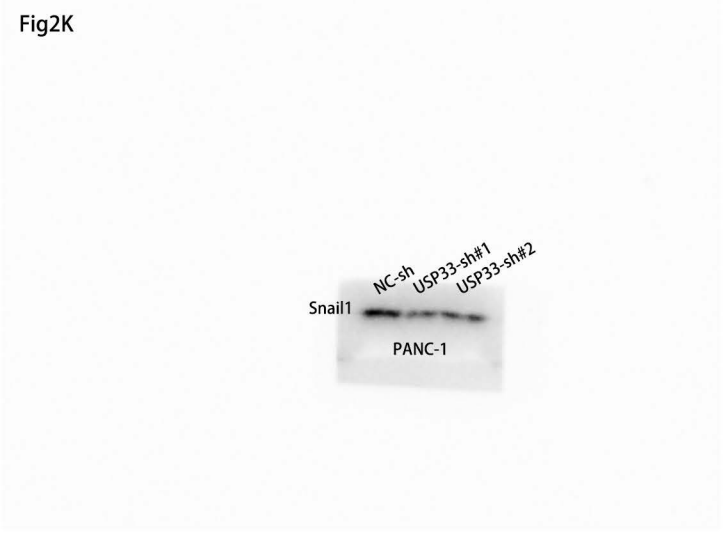

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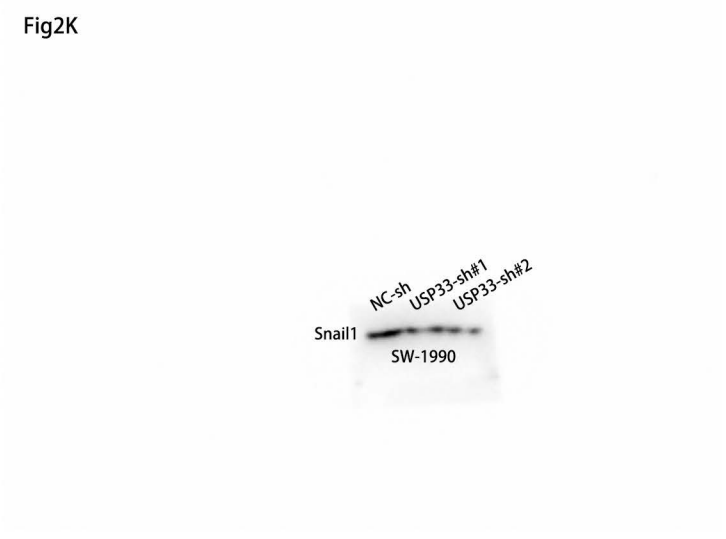

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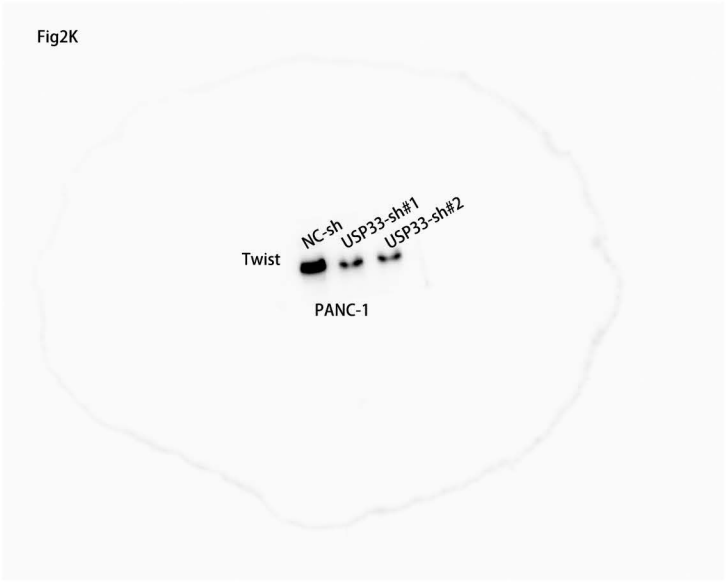

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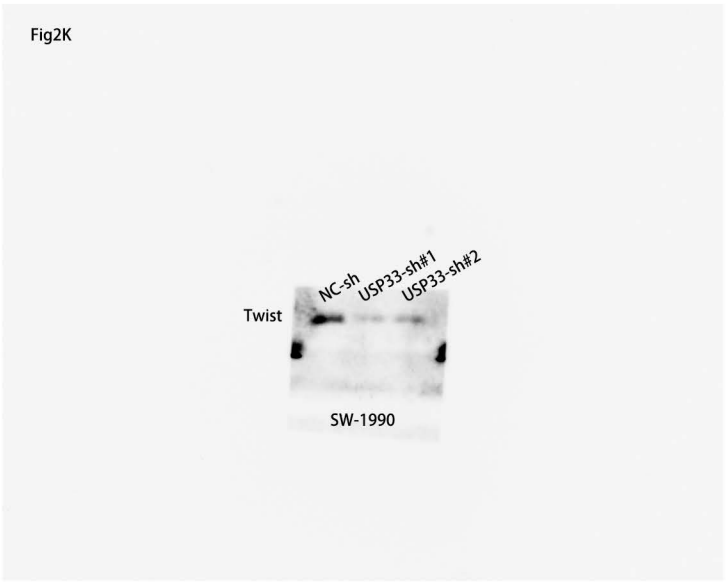

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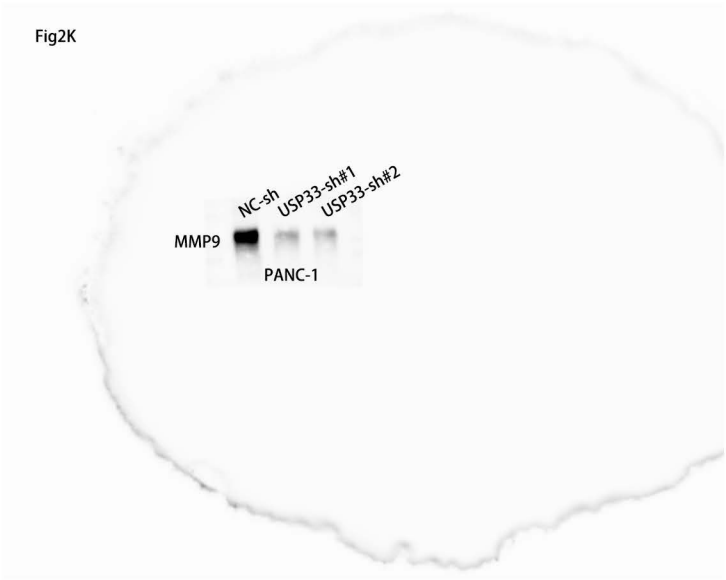

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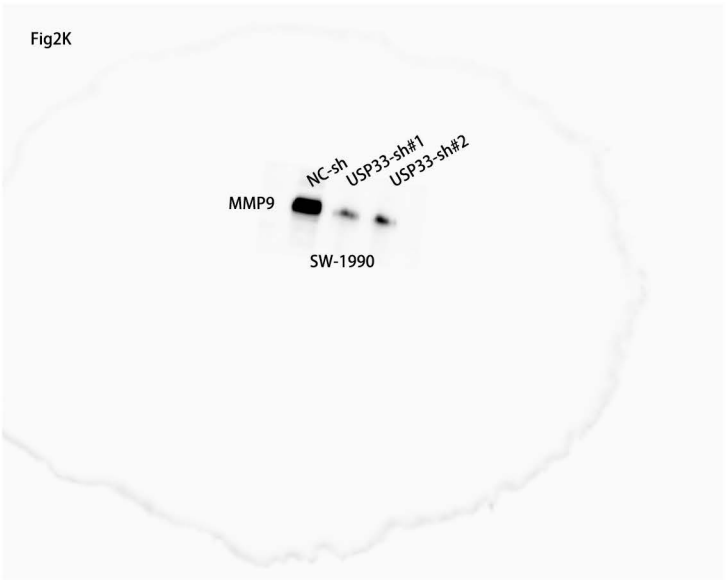

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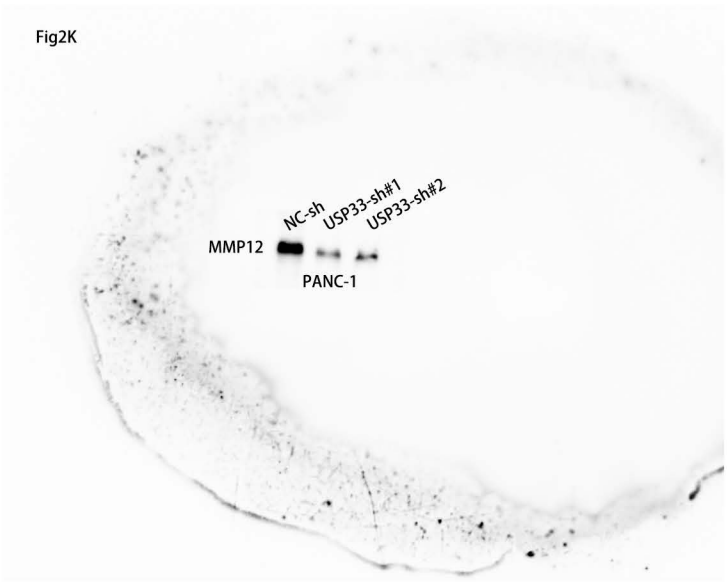

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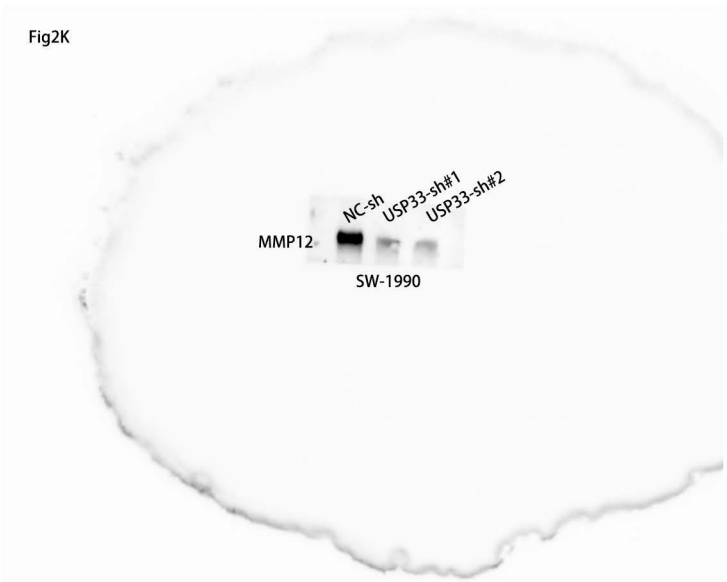

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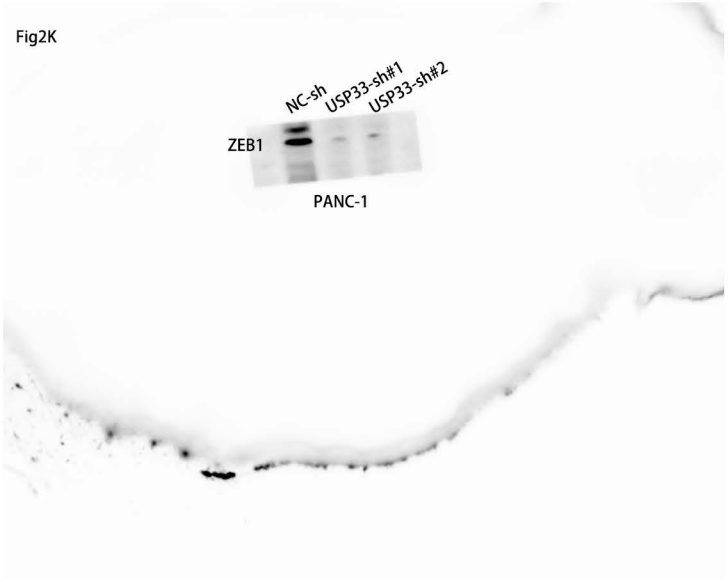

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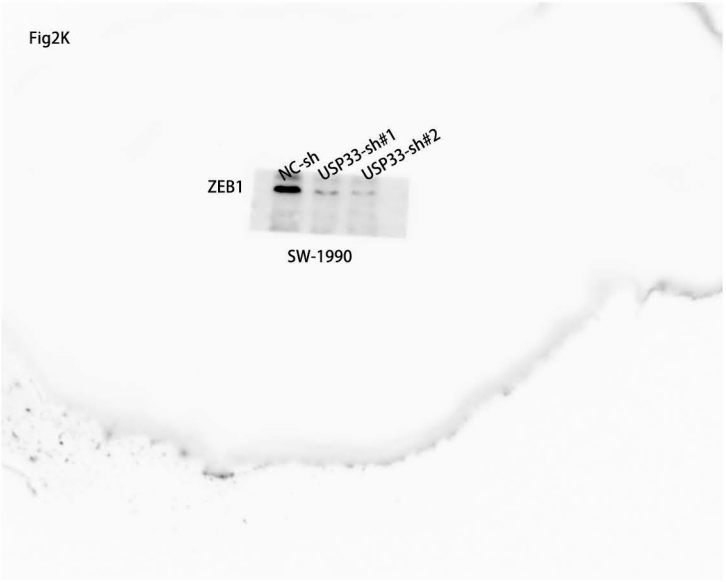

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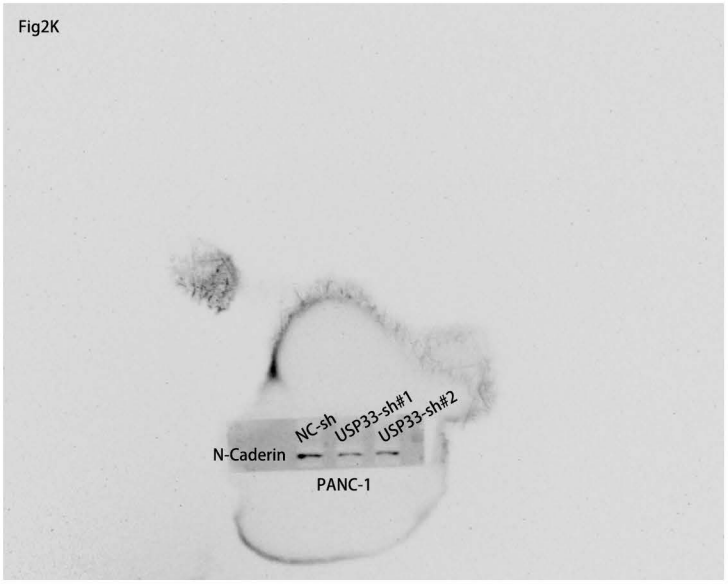

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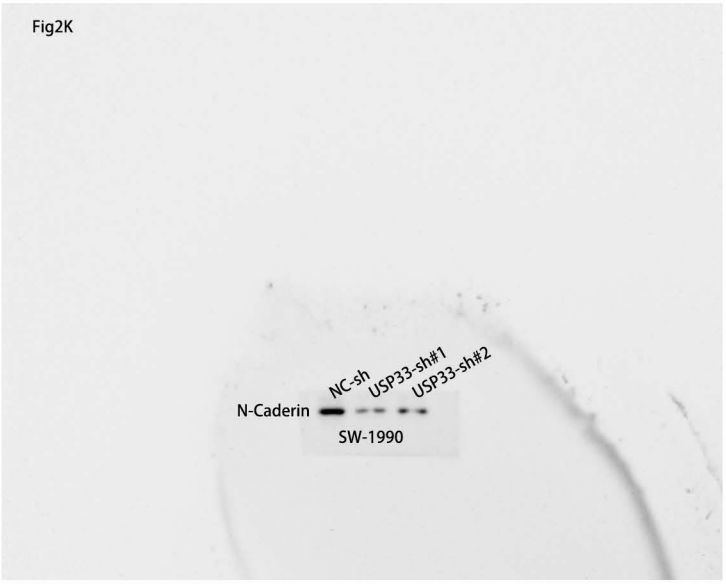

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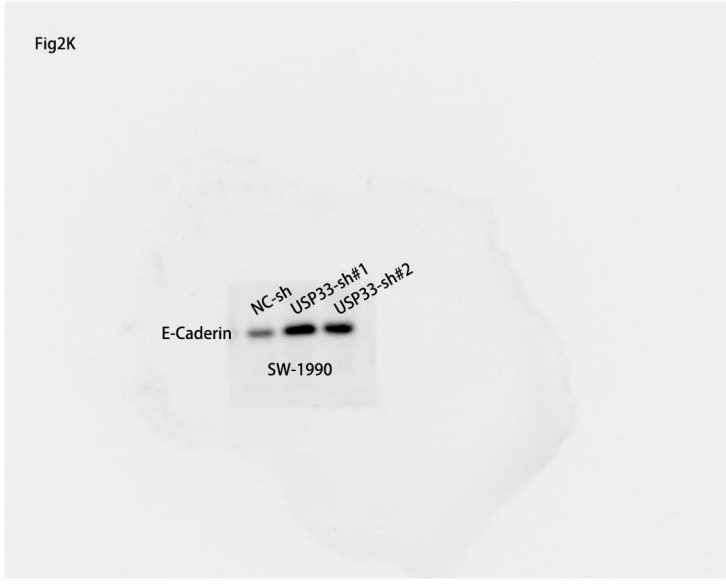
Fig2K



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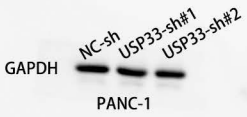

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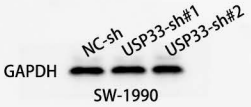
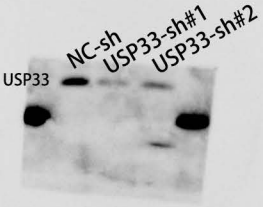


SW-1990

Fig3D

PANC-1

Fig3D



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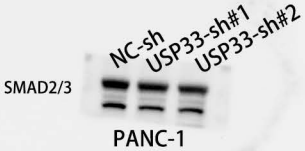

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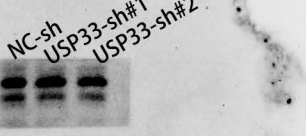

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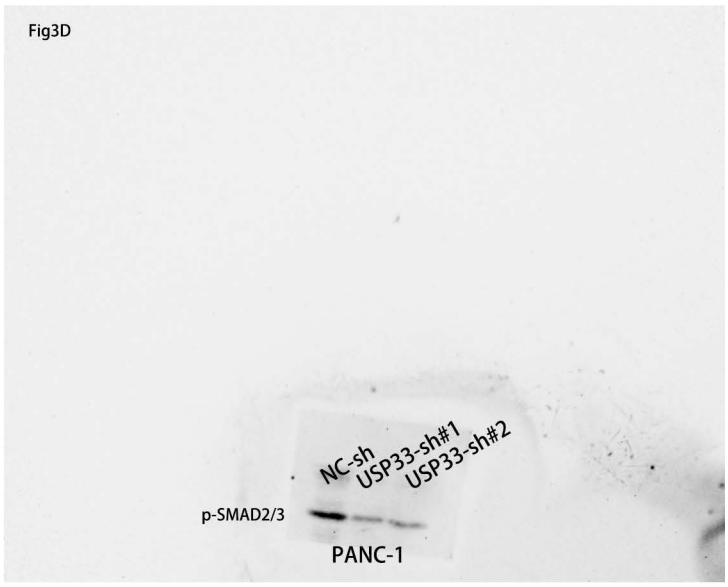
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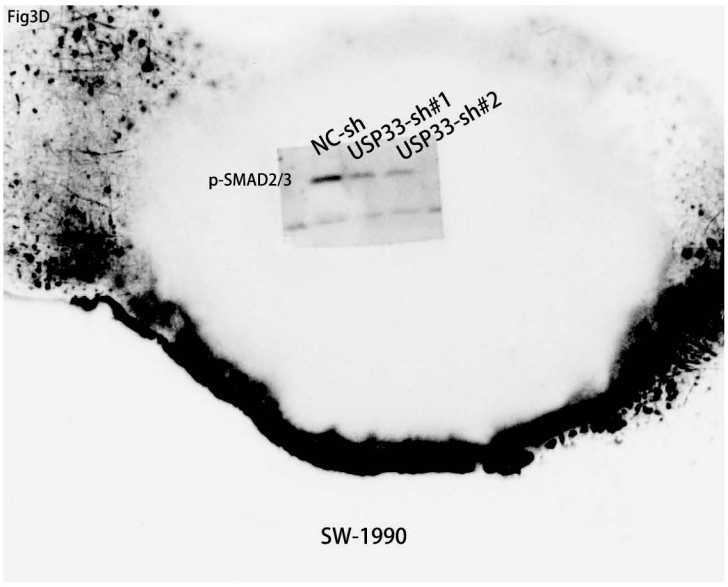
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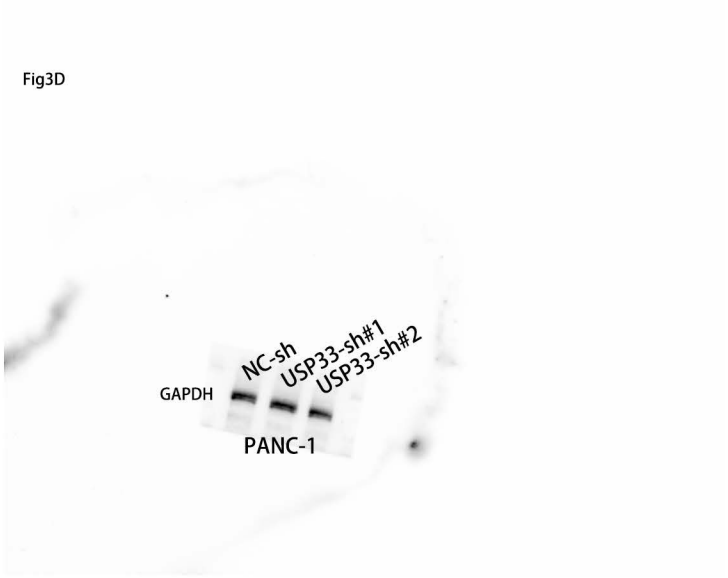
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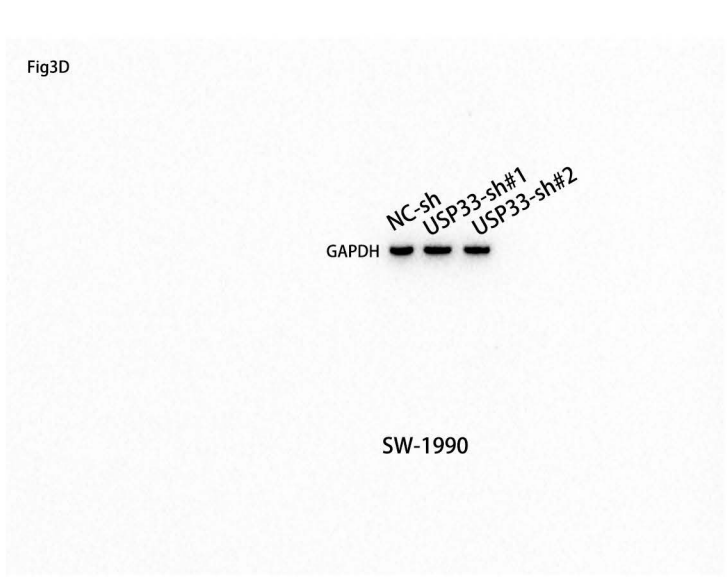
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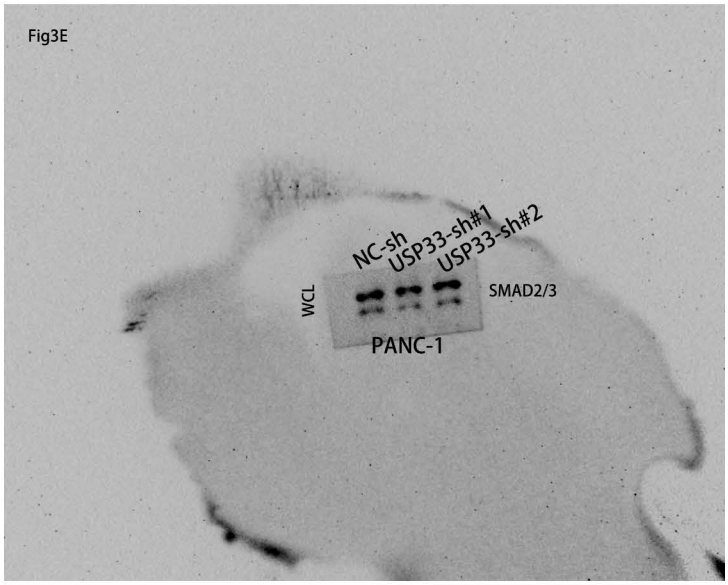
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Fig3E
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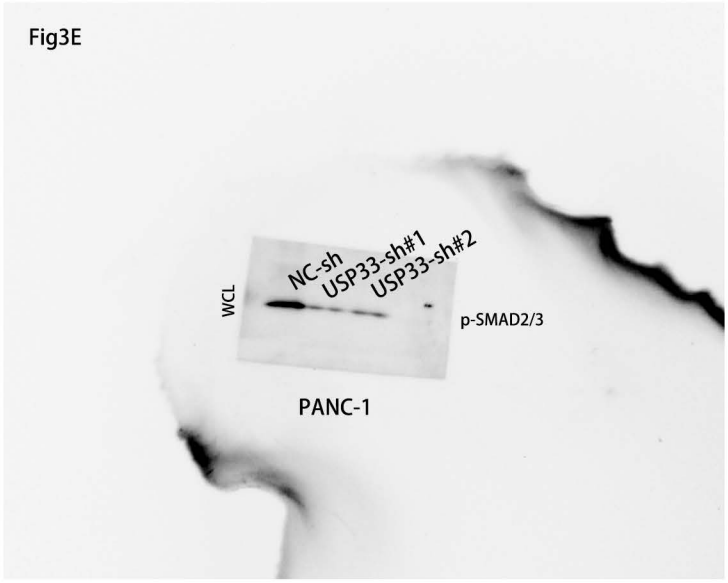
SW-1990

Fig3E



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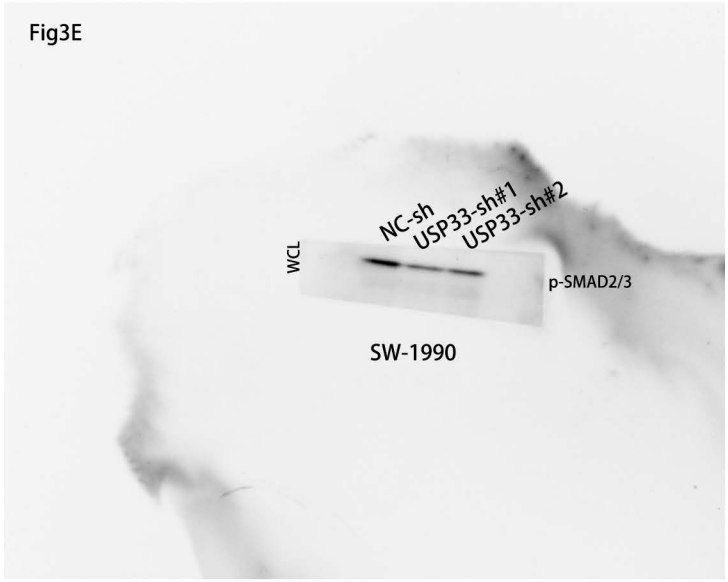

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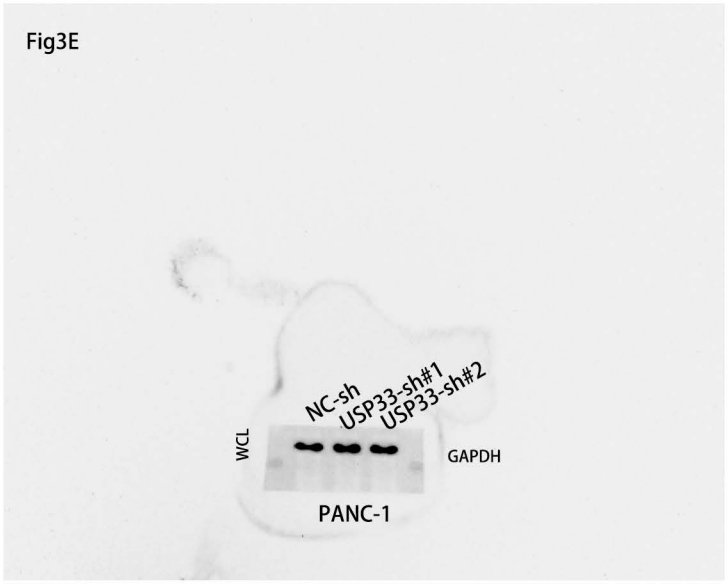

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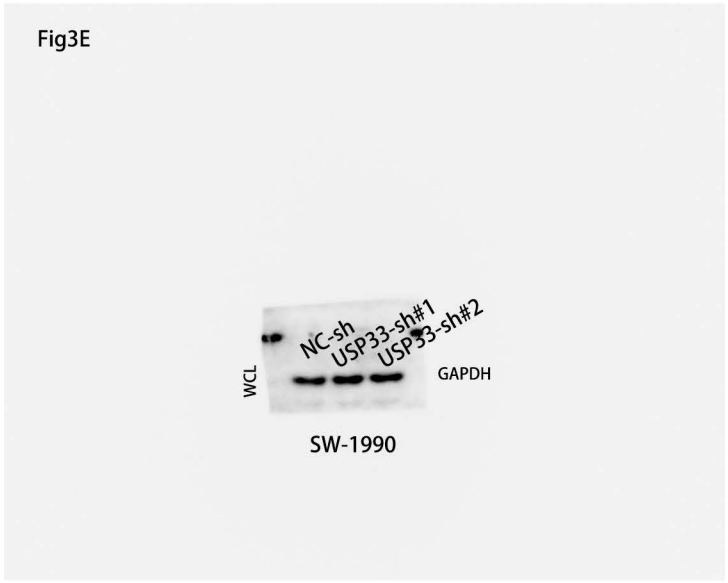

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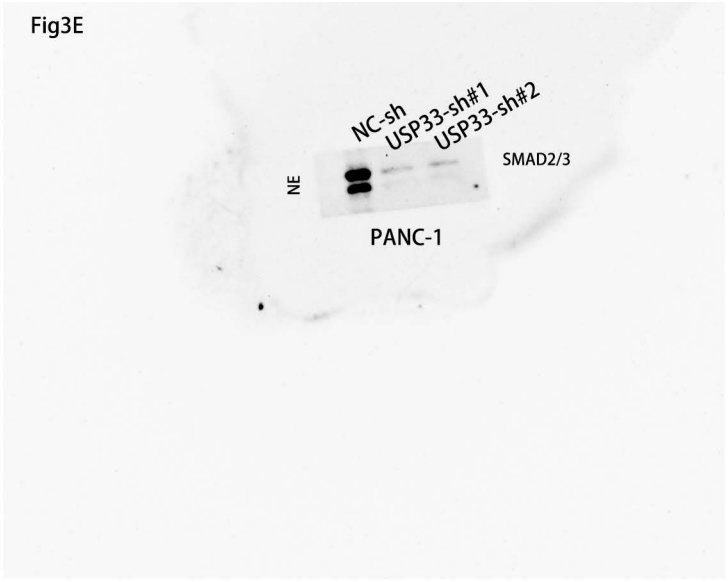

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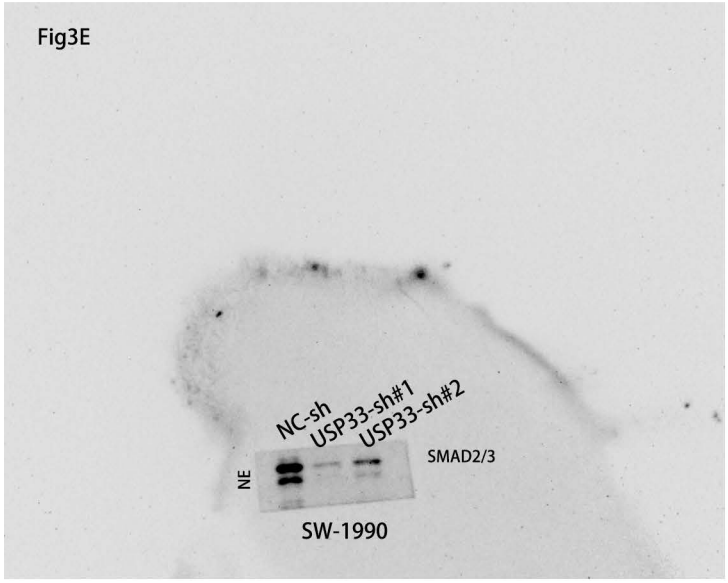

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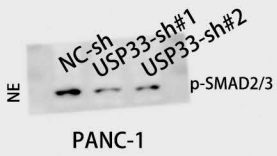

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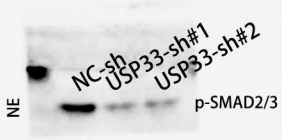

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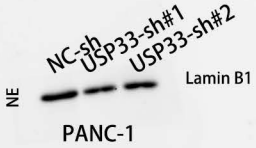
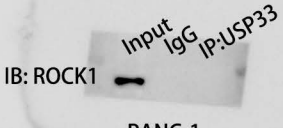


PANC-1

Fig3E

SW-1990

Fig3H



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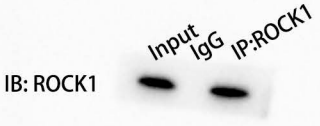

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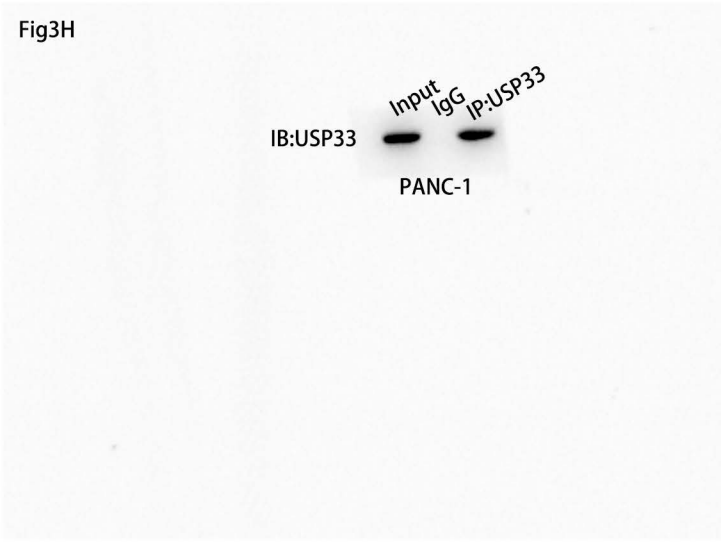

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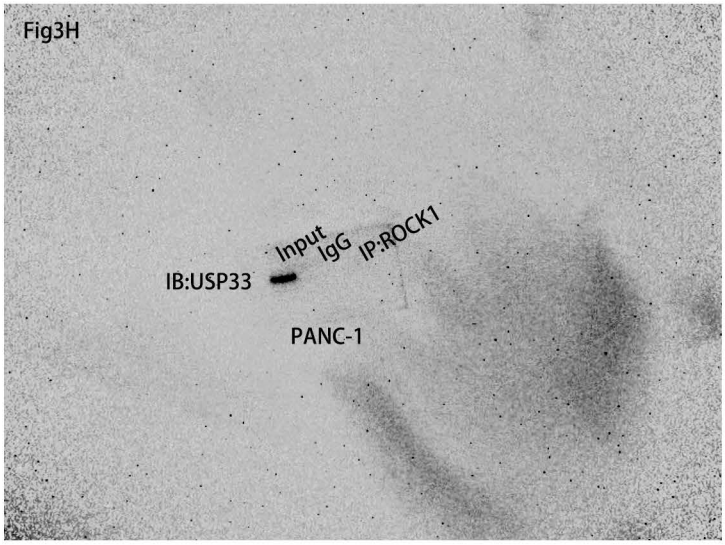

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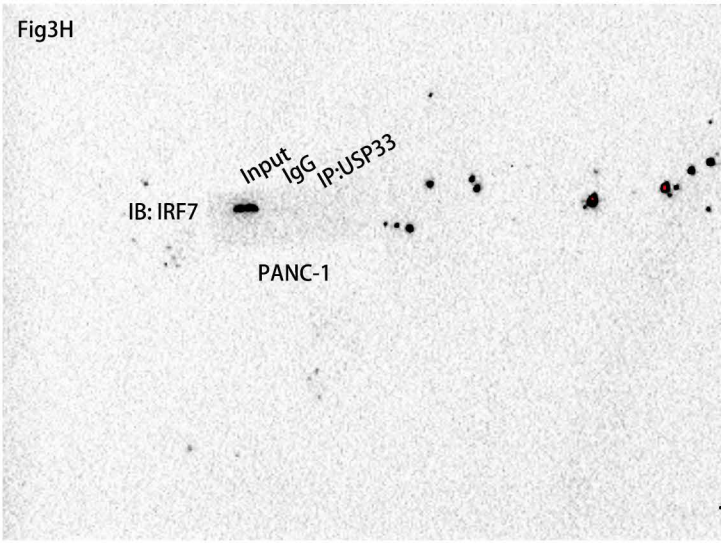

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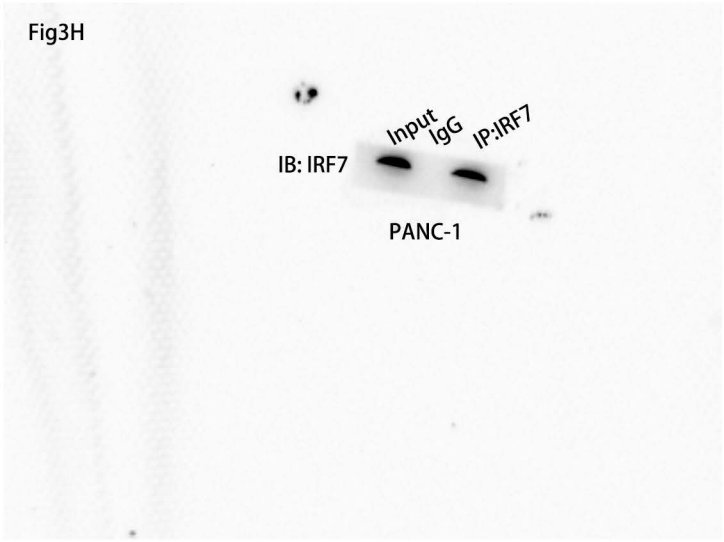

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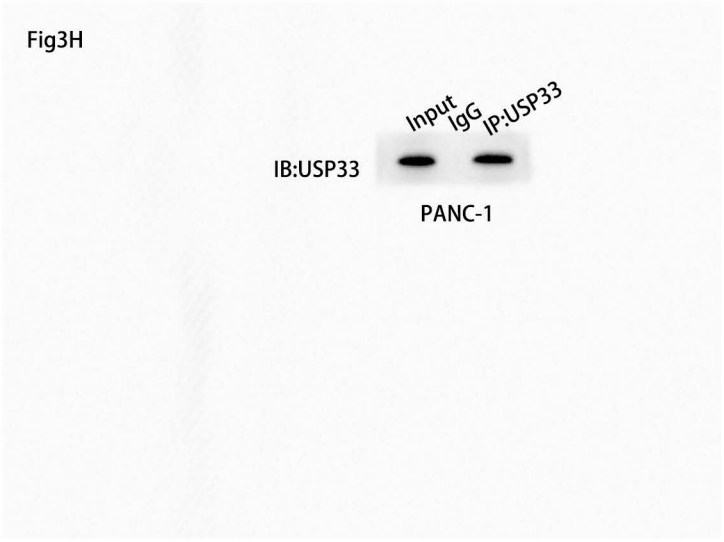

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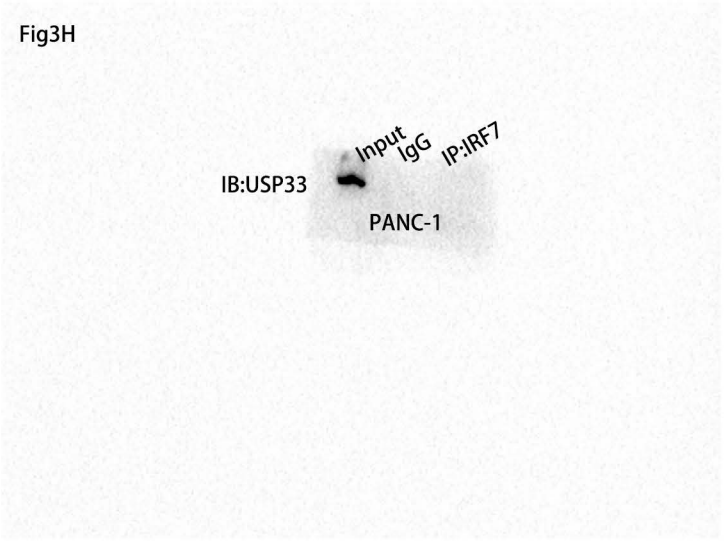
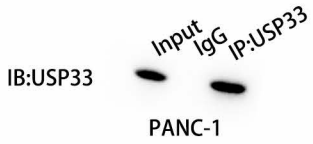


Fig3H

Fig3H

Fig3H



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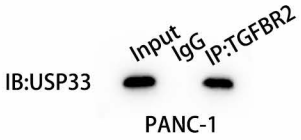

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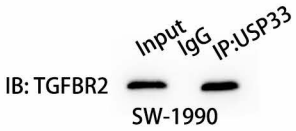

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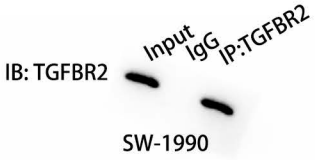
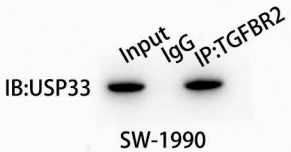


Fig3H

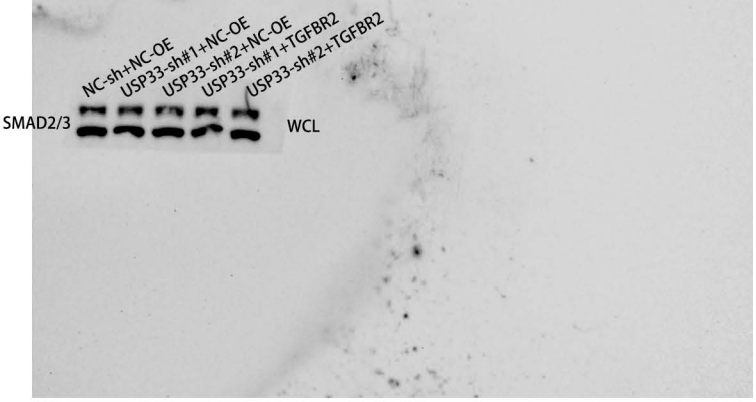
SW-1990

Fig3H



SW-1990

Fig3K



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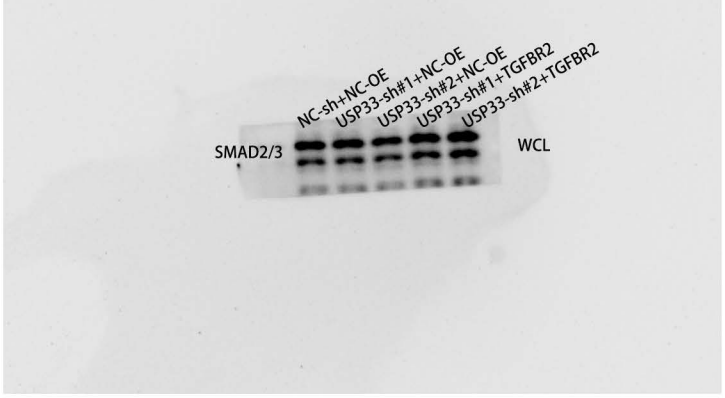
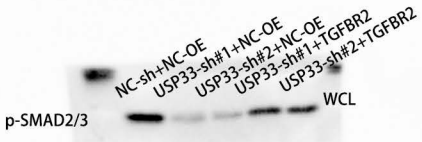


Fig3K

Fig3K



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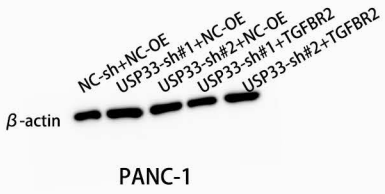
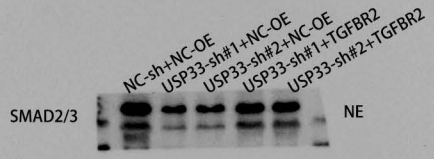


PANC-1

Fig3K

SW-1990

Fig3K



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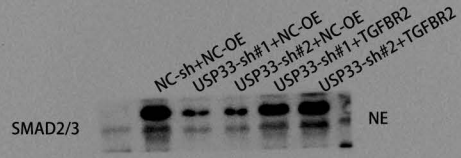

SW-1990

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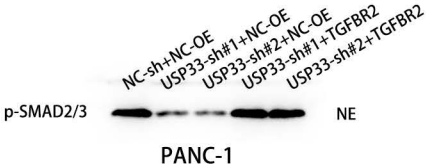
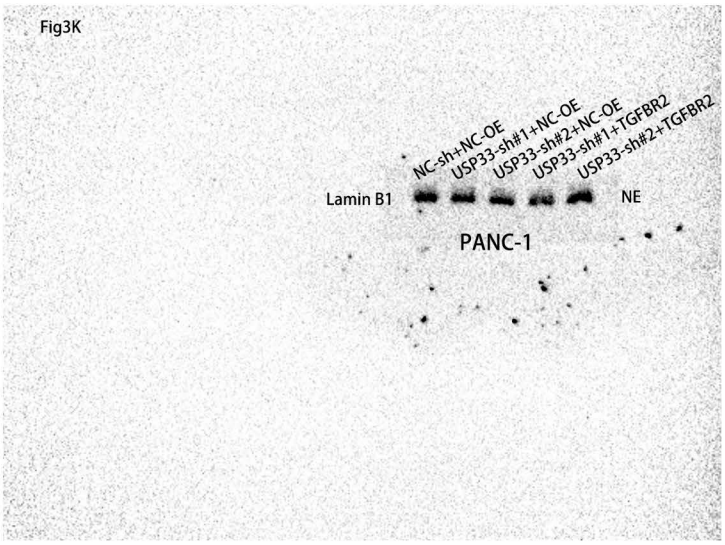


PANC-1

Fig3K

SW-1990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USP33-sh#1+NC-OE
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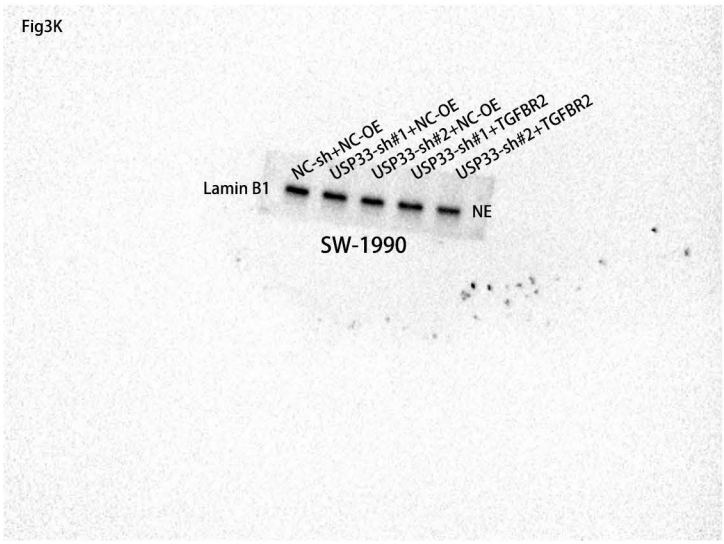
Lamin B1
NE
PANC-1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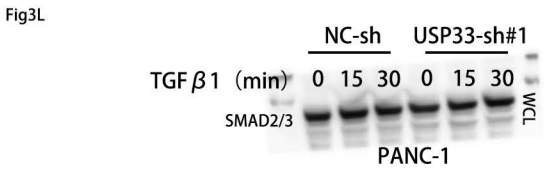
Lamin B1
NE
SW-1990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USP33-sh#1
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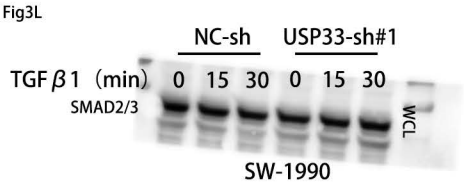
SMAD2/3
WCL
PANC-1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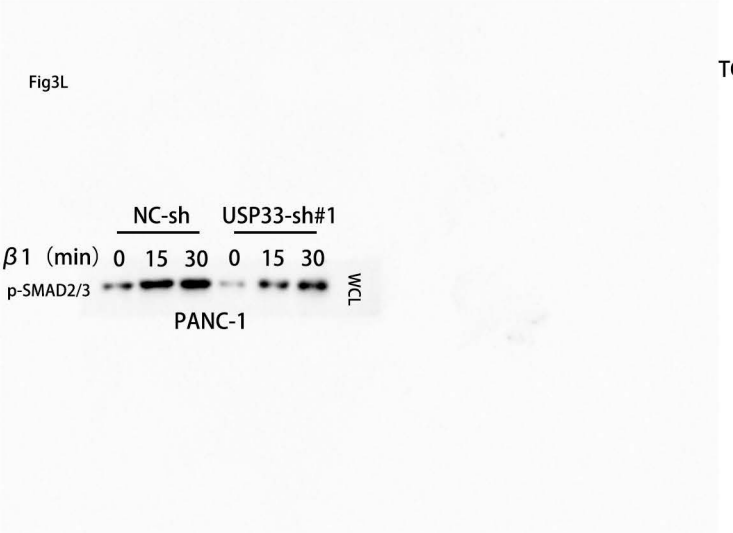
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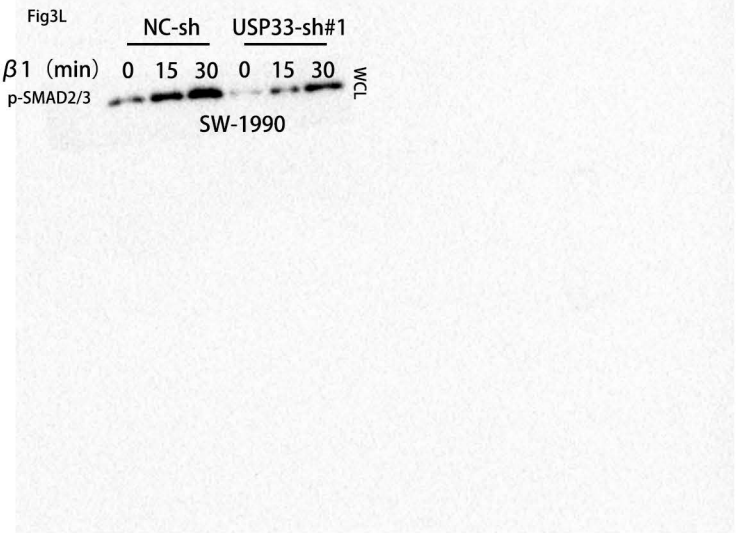
p-SMAD2/3
WCL
PANC-1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TGFβ1 (min)
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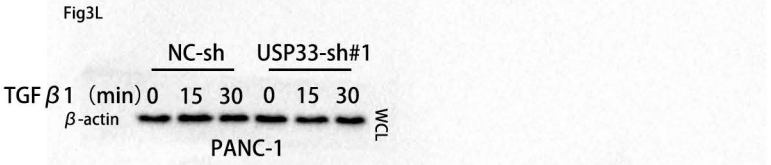
p-SMAD2/3
WCL
SW-1990

Fig3L



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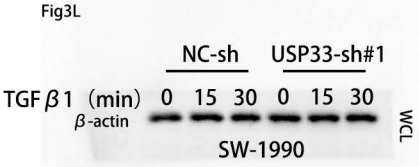

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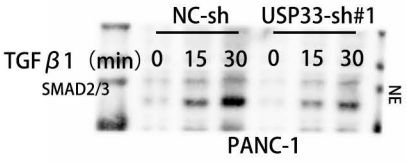

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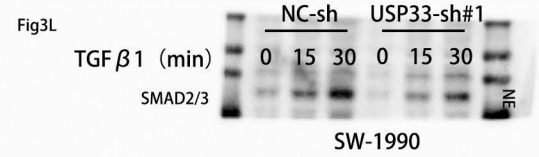

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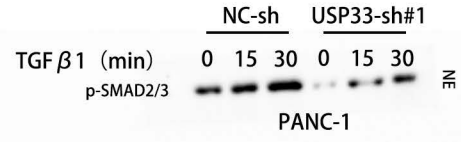

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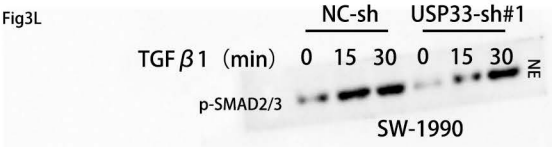

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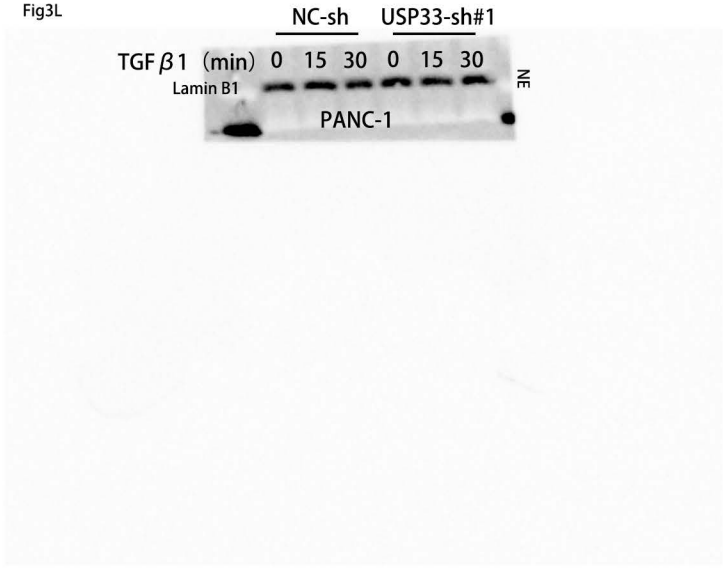

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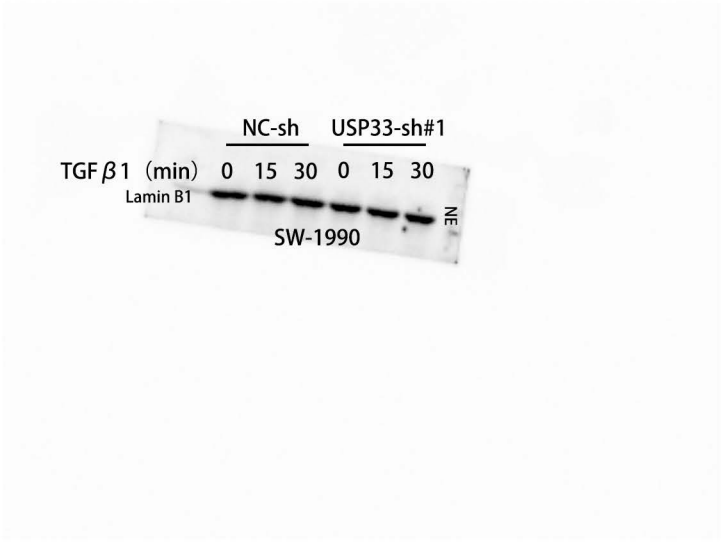
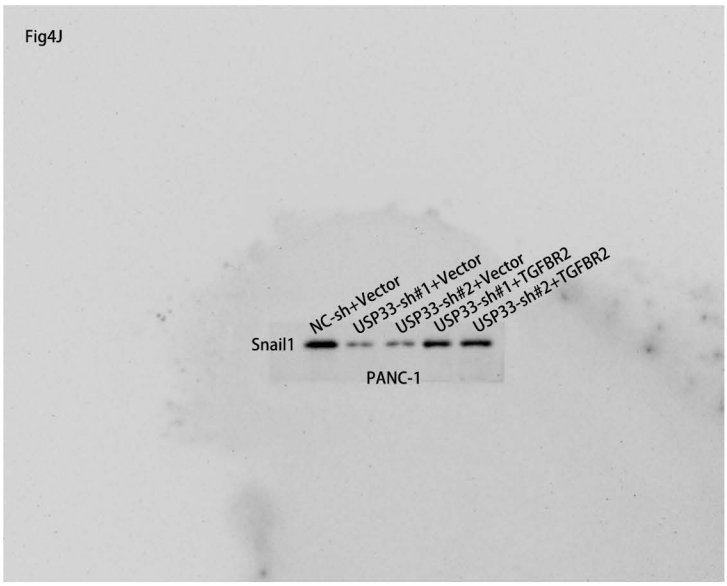


Fig4J



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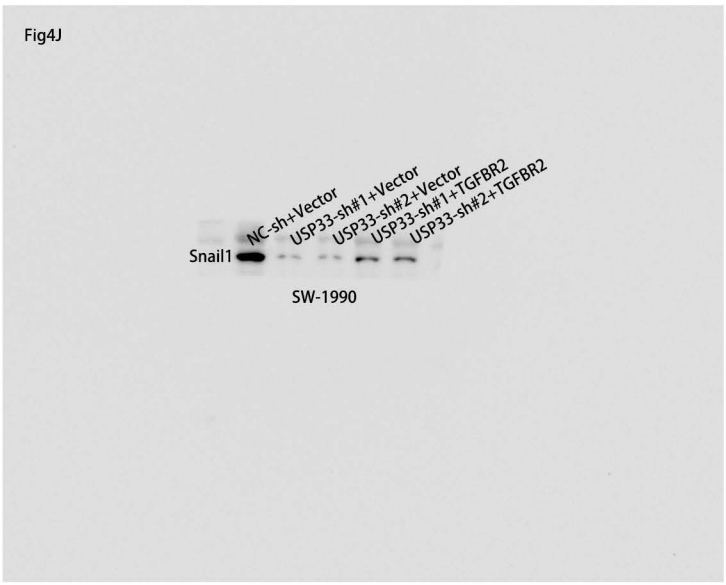

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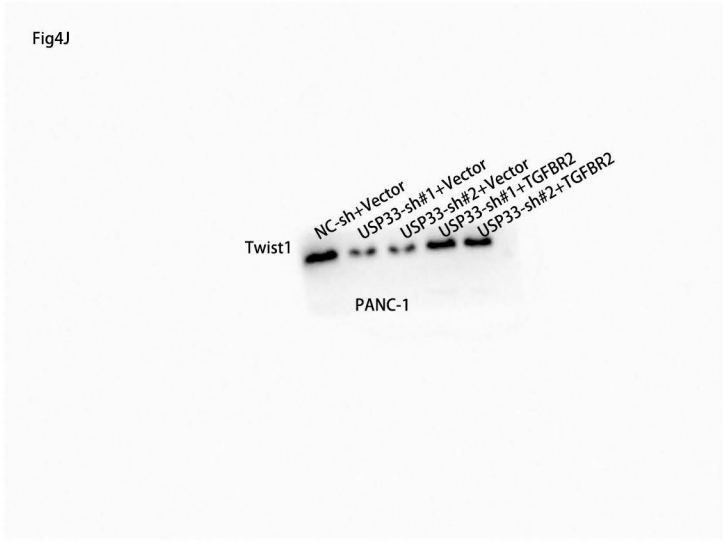

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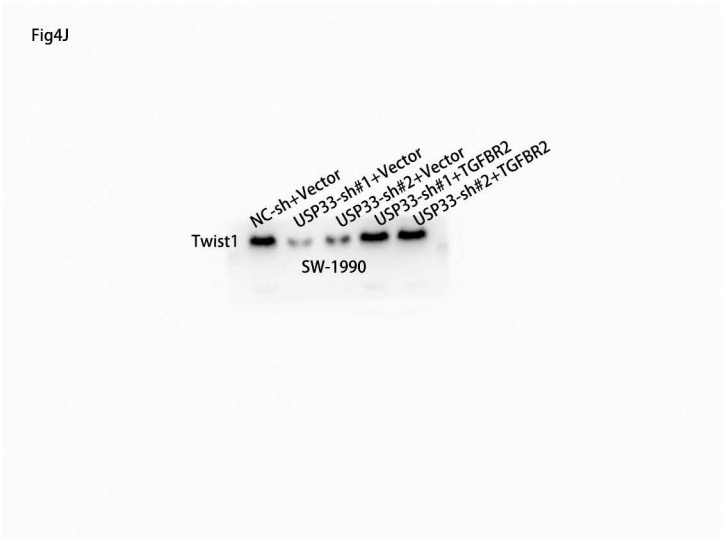
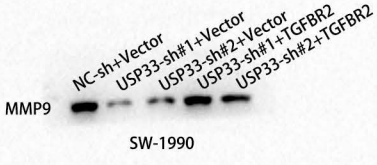


Fig4J

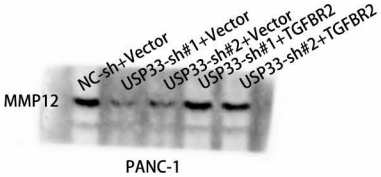
PANC-1

Fig4J



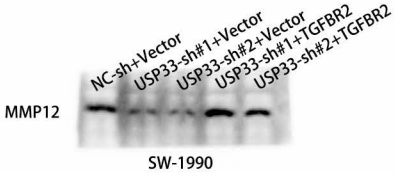
SW-1990

Fig4J



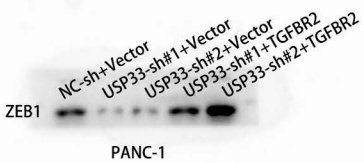
PANC-1

Fig4J



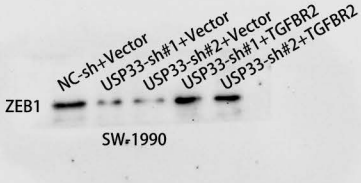
SW-1990

Fig4J



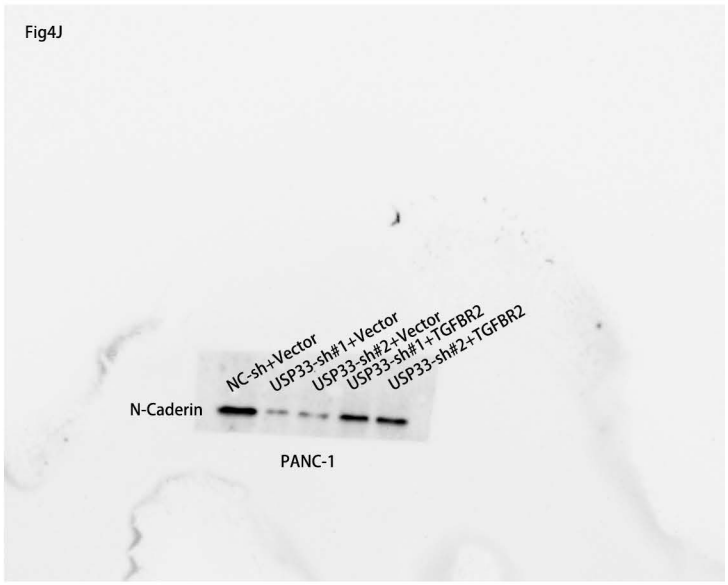
PANC-1

Fig4J



SW-1990

Fig4J



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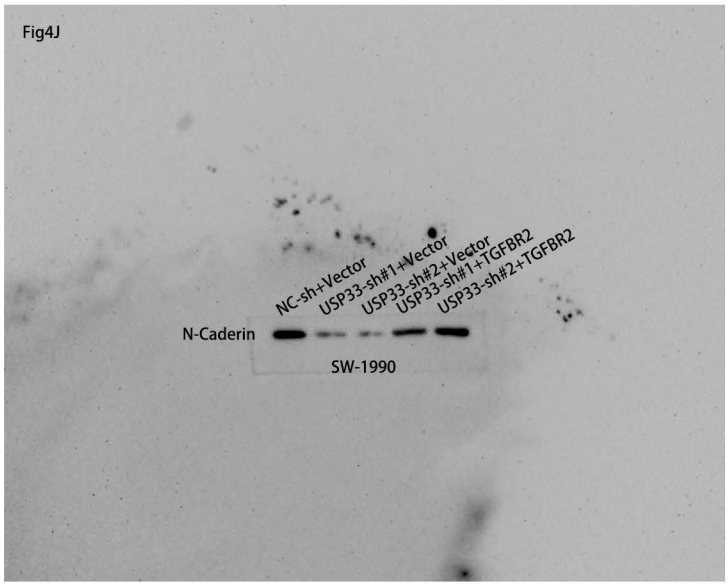

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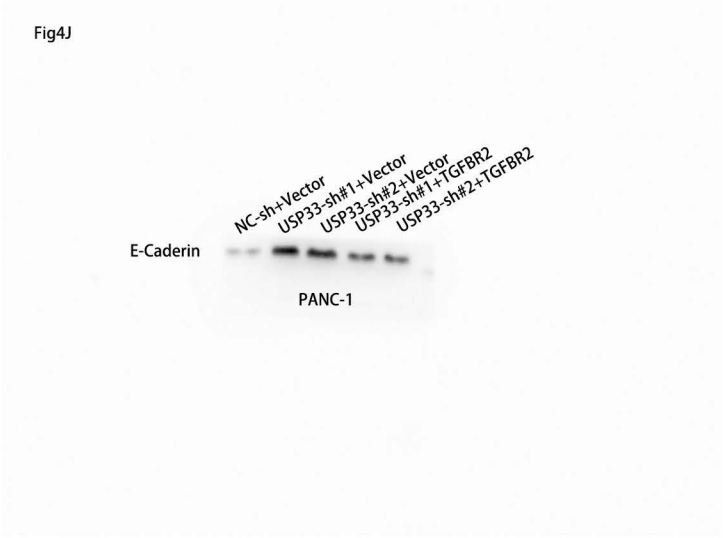

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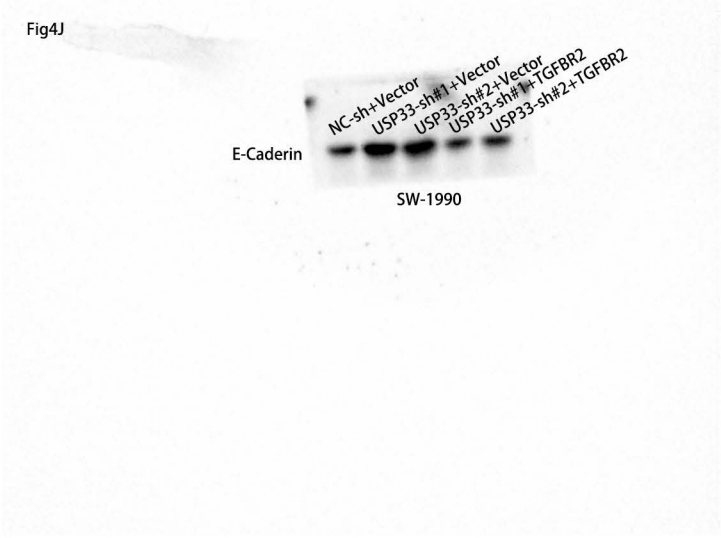

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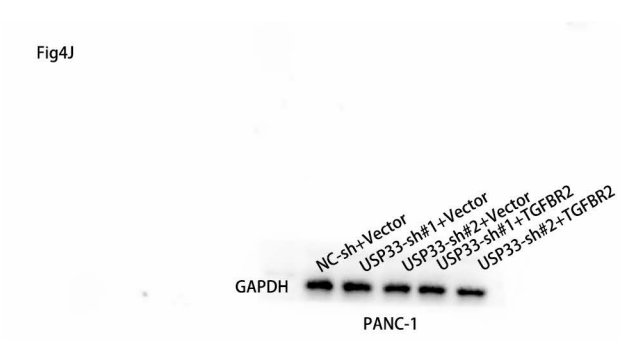

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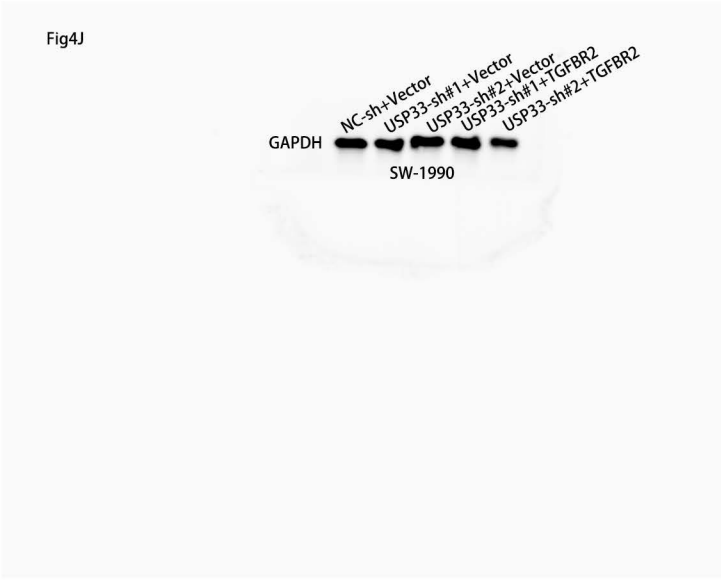

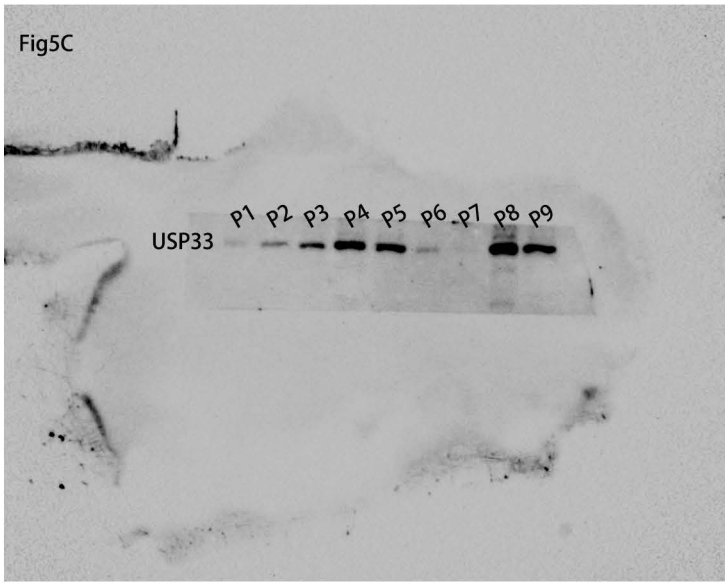
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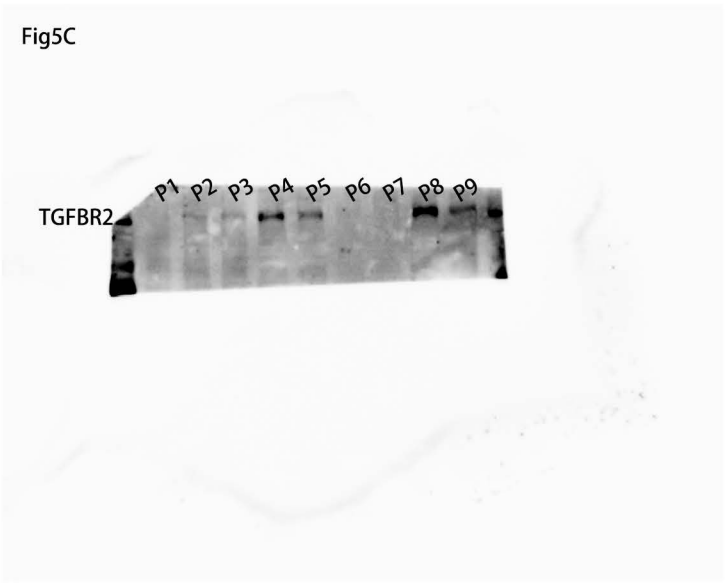
USP33
P1 P2 P3 P4 P5 P6 P7 P8 P9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TGFBR2
P1 P2 P3 P4 P5 P6 P7 P8 P9

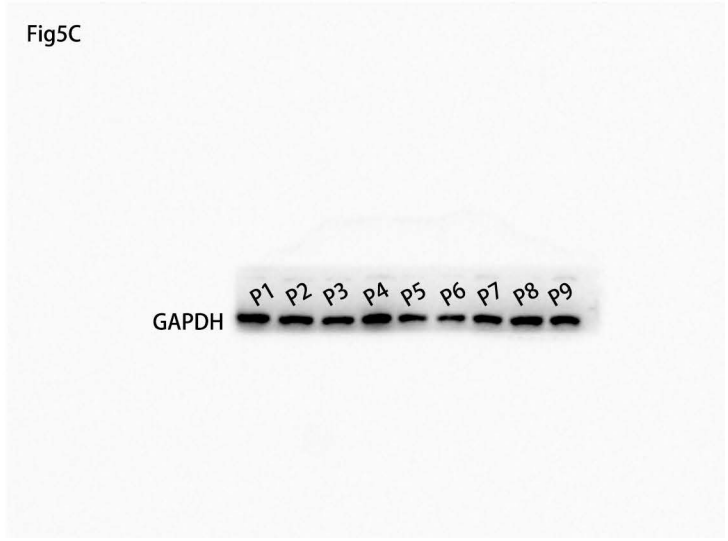


Fig5C
GAPDH
P1 P2 P3 P4 P5 P6 P7 P8 P9

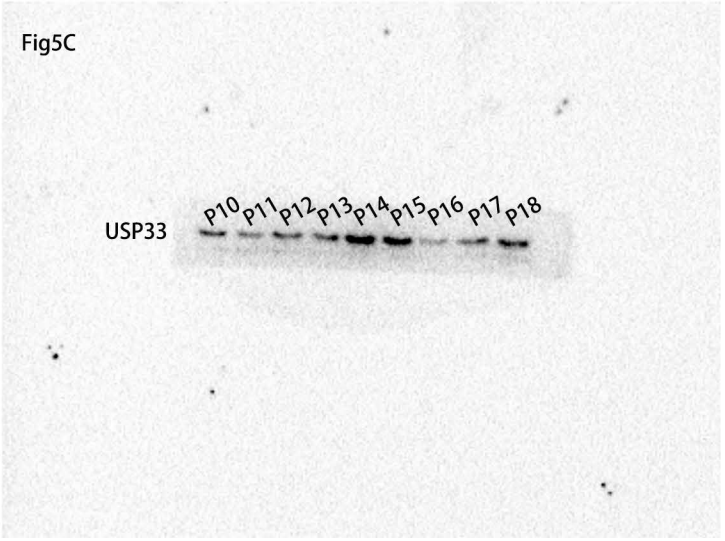
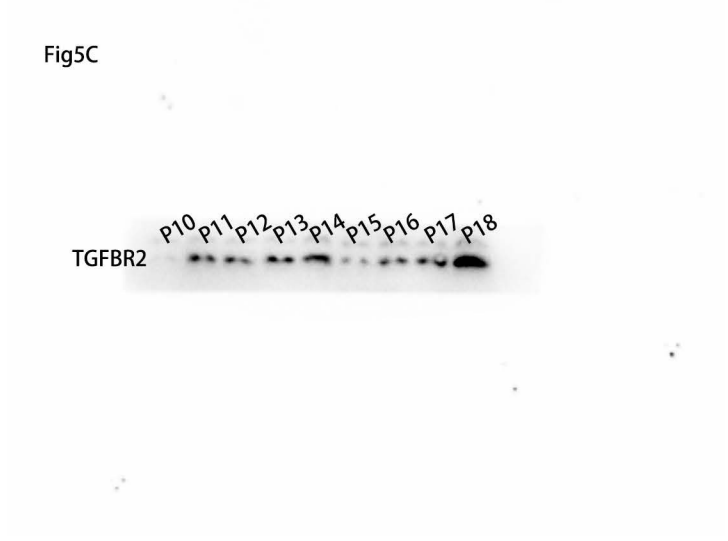


Fig5C
USP33
P10 P11 P12 P13 P14 P15 P16 P17 P18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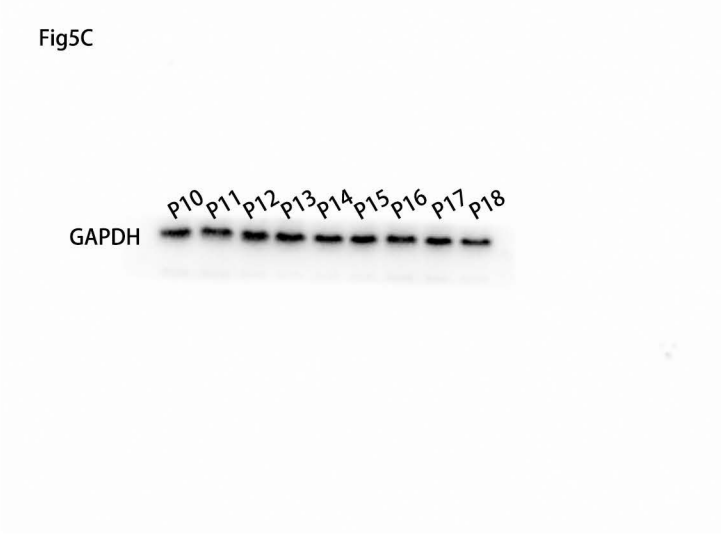
TGFBR2
P10 P11 P12 P13 P14 P15 P16 P17 P18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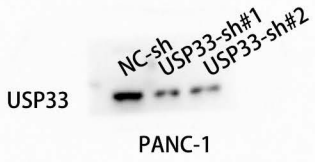
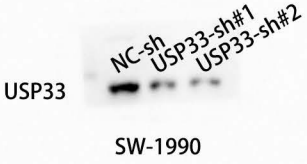
GAPDH
P10 P11 P12 P13 P14 P15 P16 P17 P18

Fig5F



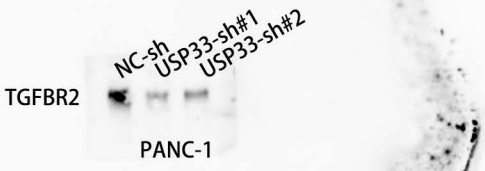
PANC-1

Fig5F



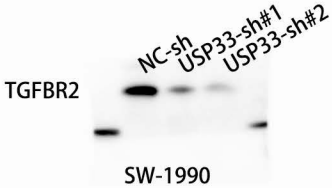
SW-1990

Fig5F



PANC-1

Fig5F

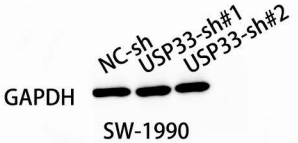


SW-1990

Fig5F

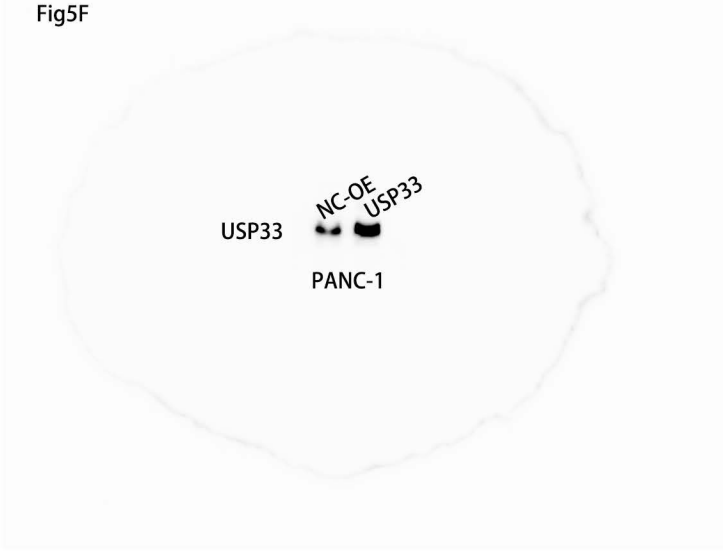
PANC-1

Fig5F



SW-1990

Fig5F



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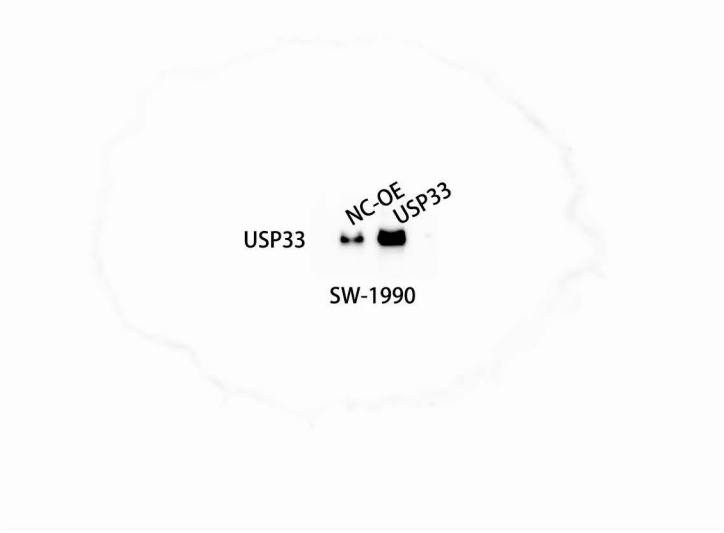

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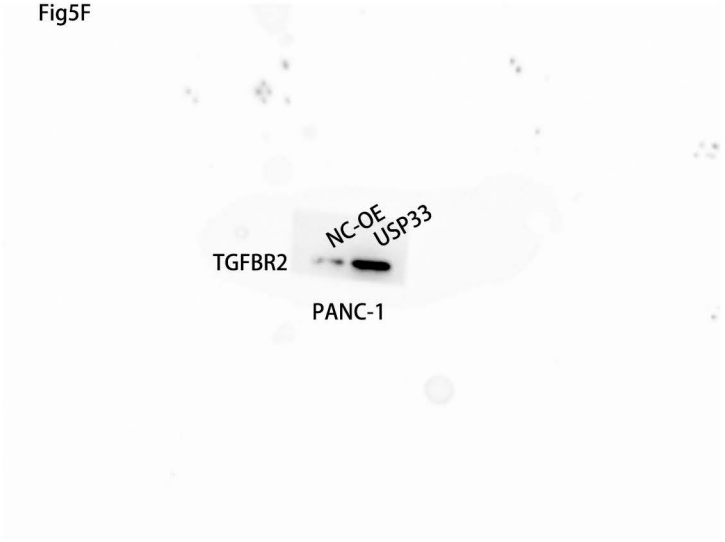
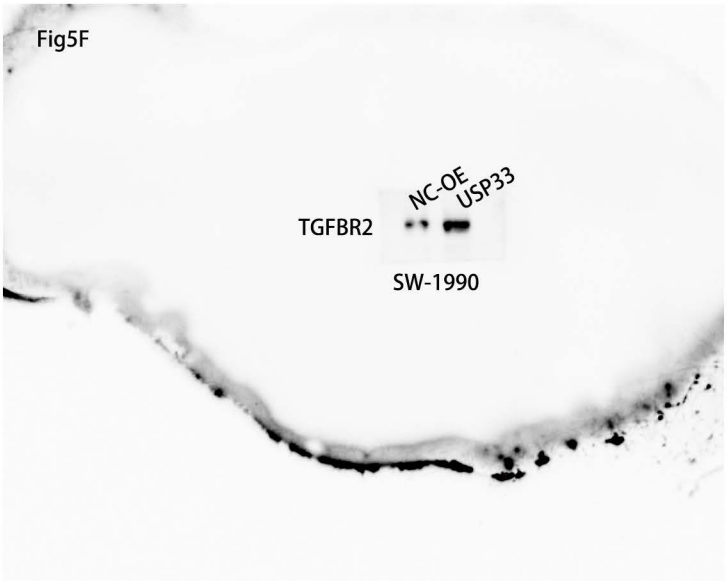


Fig5F



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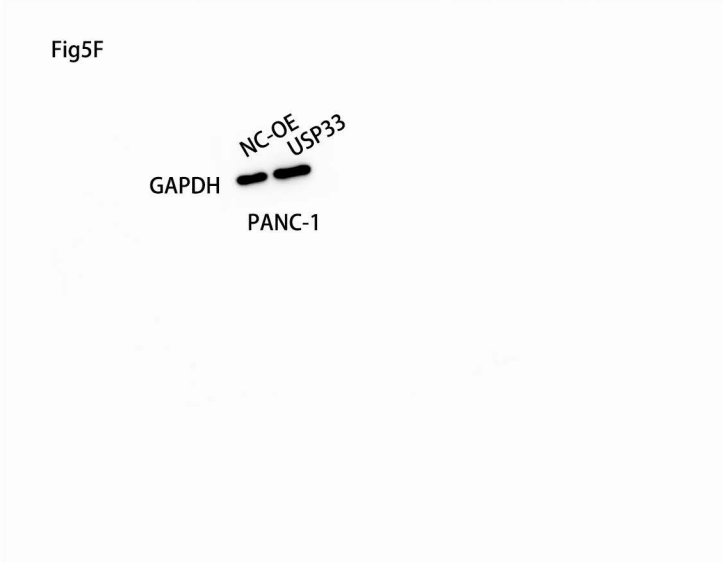

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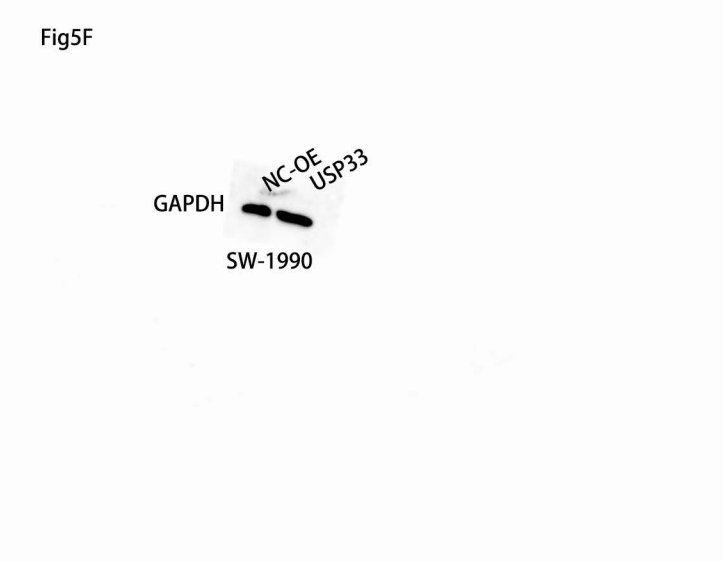

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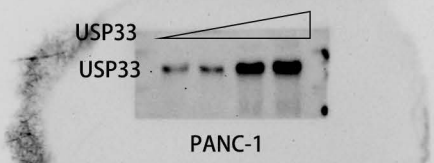

PANC-1

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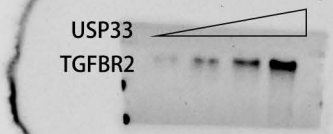

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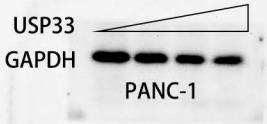

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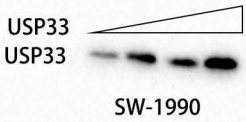

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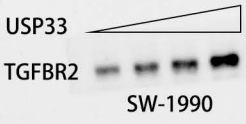

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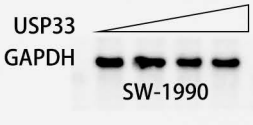

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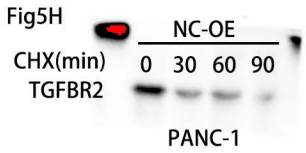
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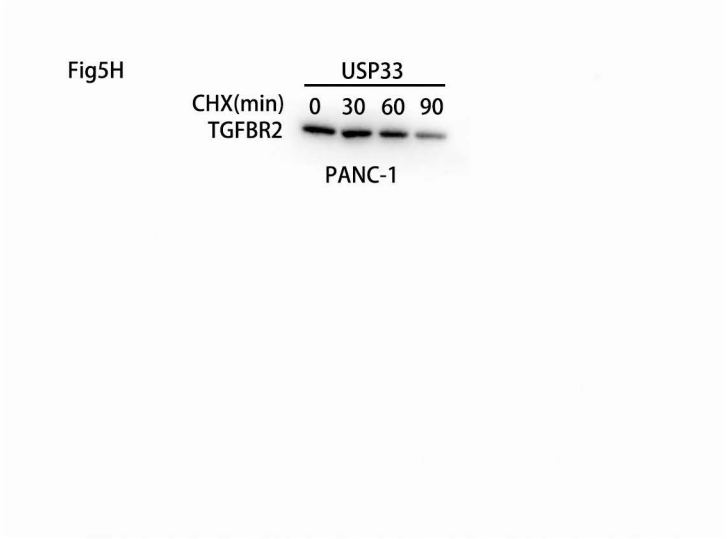
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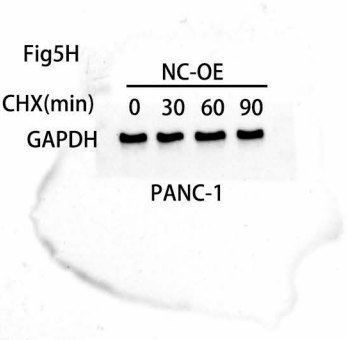
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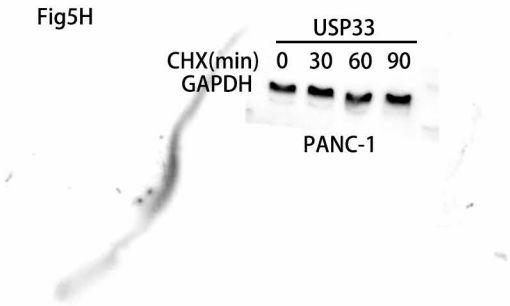
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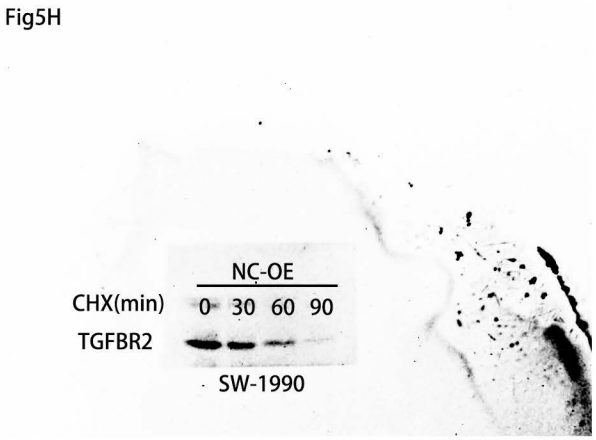
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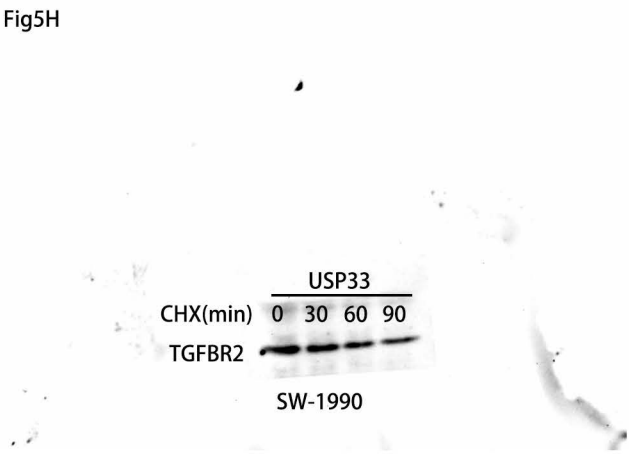
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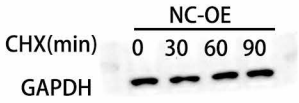
Fig5H



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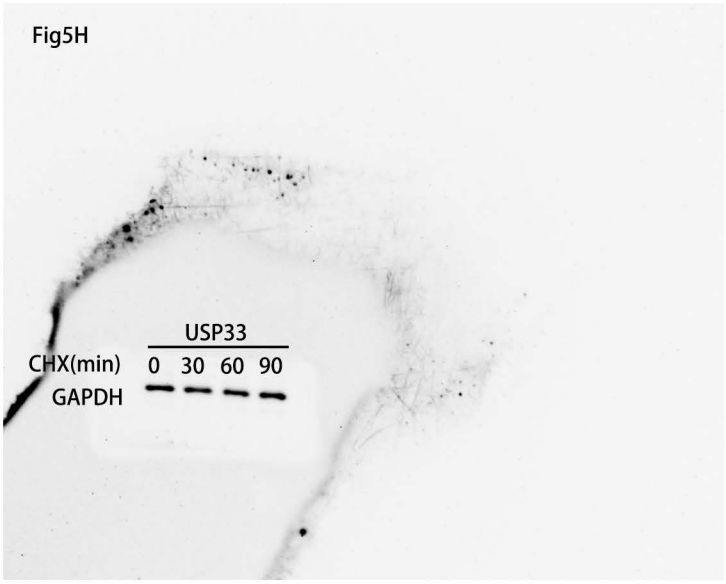

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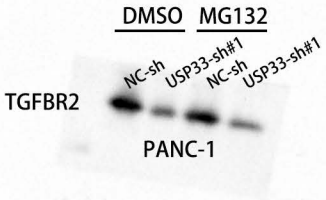

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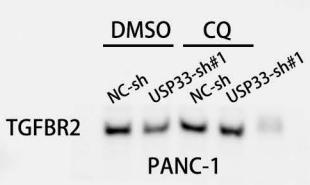

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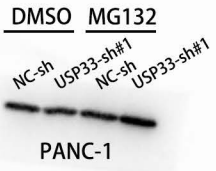

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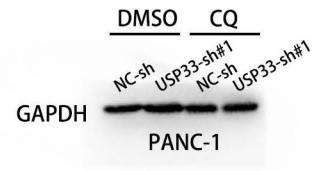

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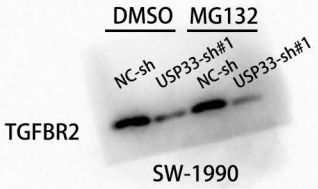

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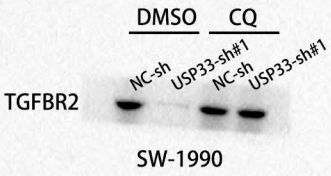

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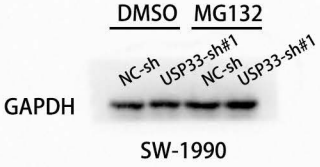

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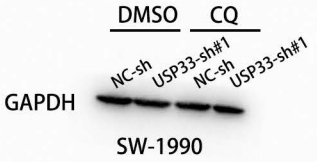

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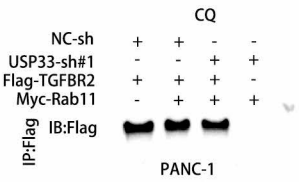

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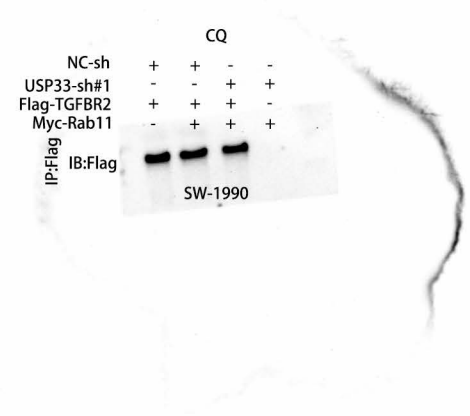

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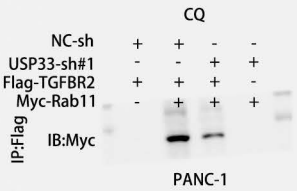

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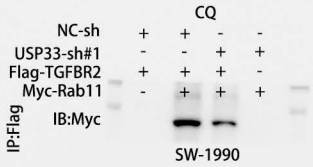

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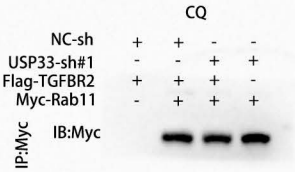

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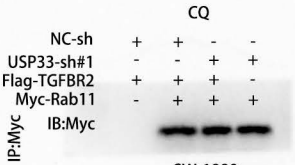

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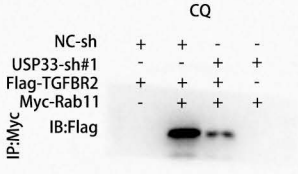

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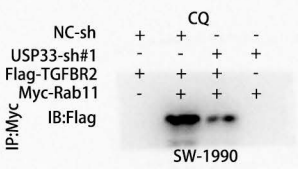

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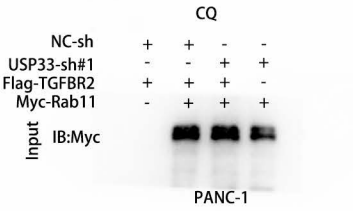

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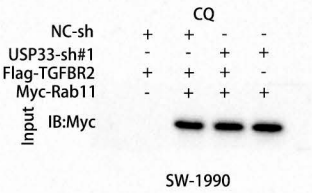

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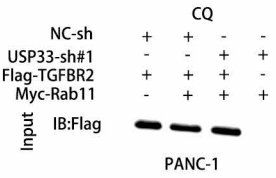

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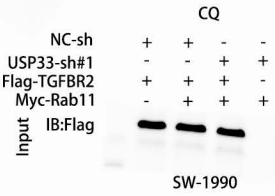

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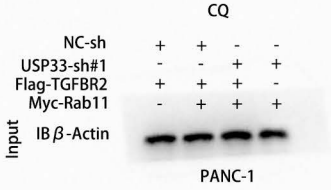

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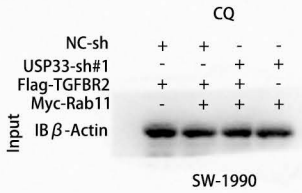

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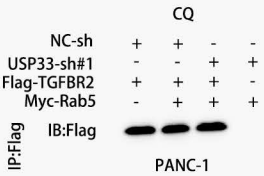

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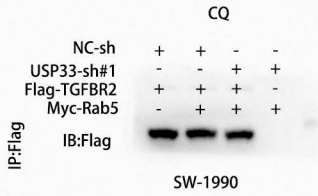

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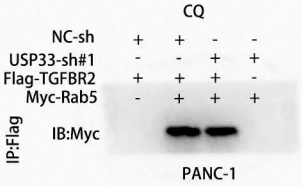

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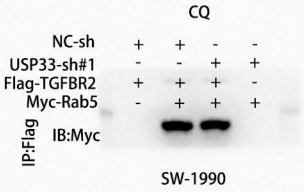

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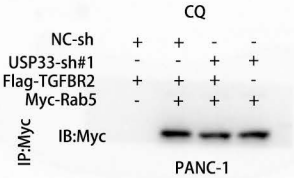

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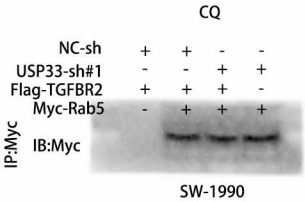

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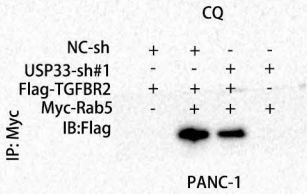

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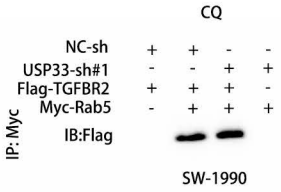

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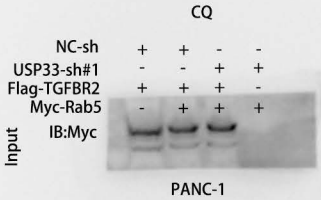

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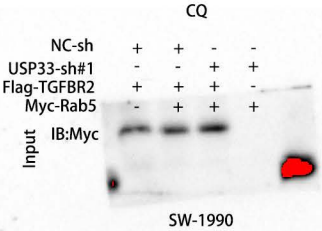

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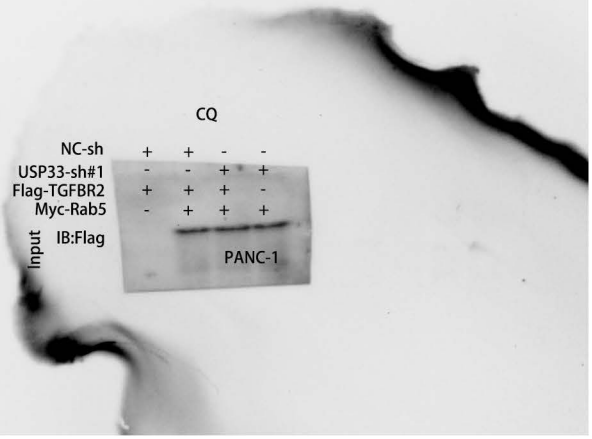

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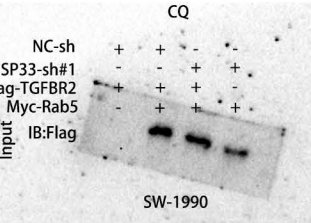

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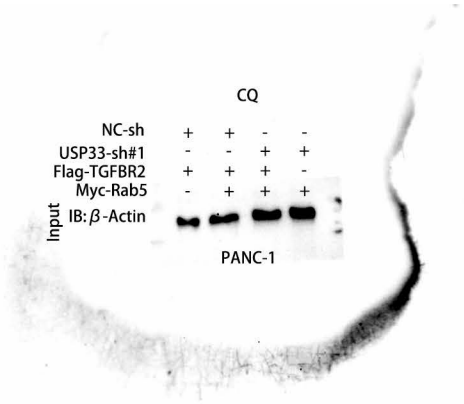

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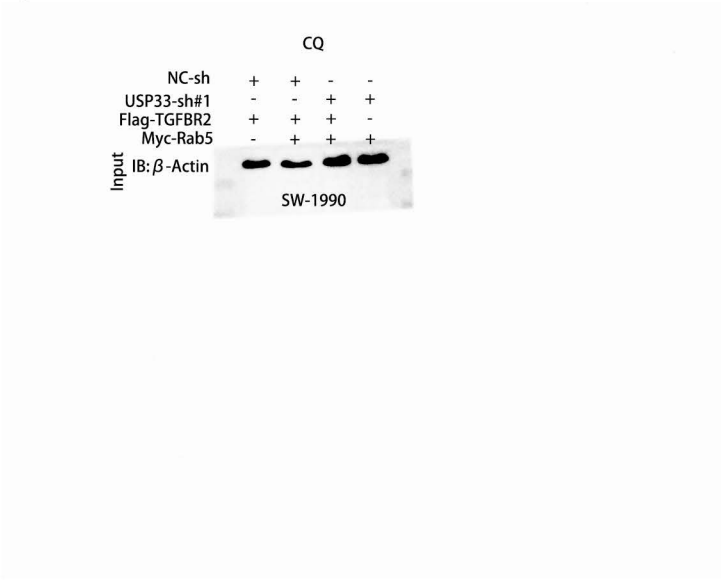
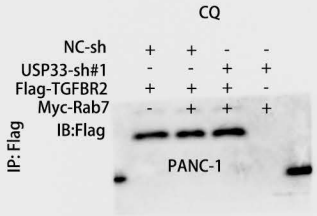


Fig5N



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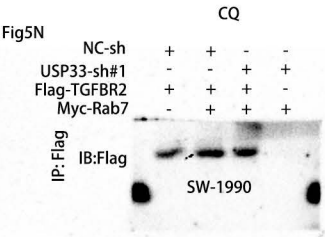

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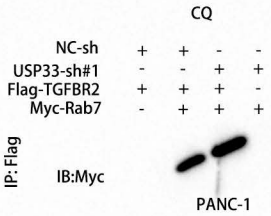

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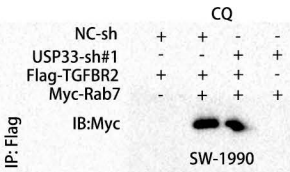

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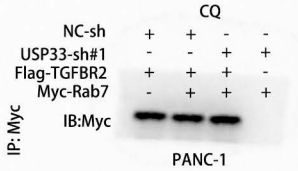

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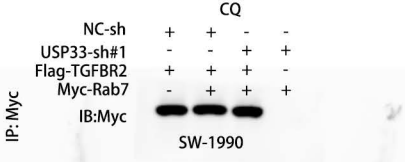

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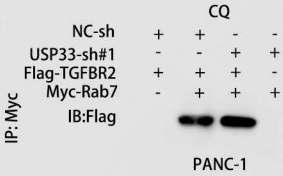

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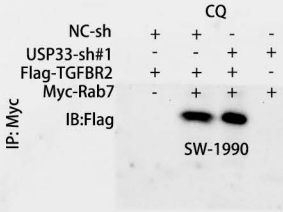

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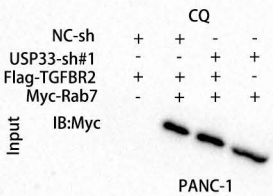

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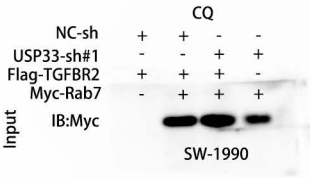

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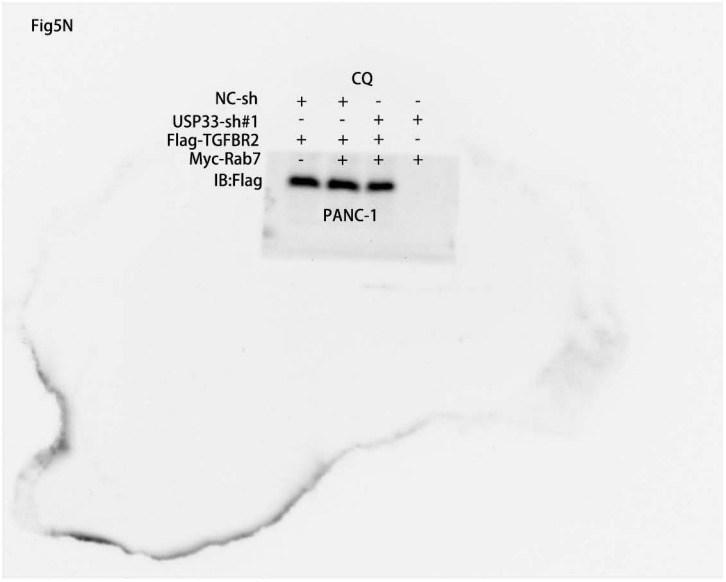

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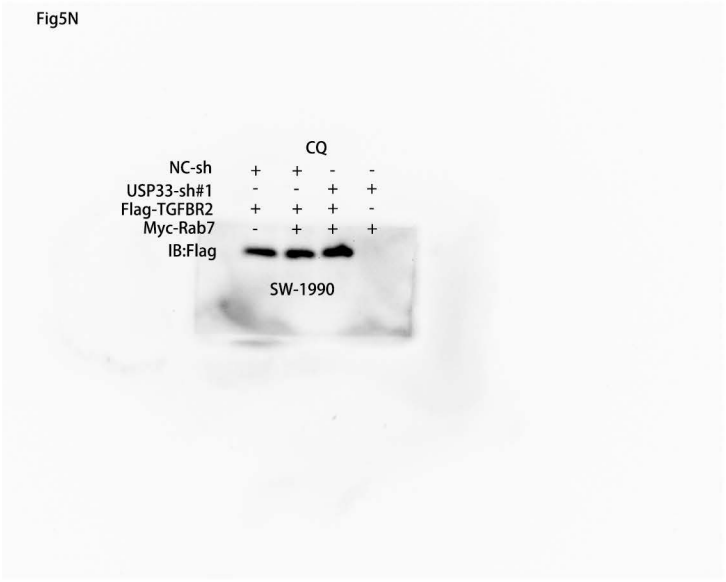

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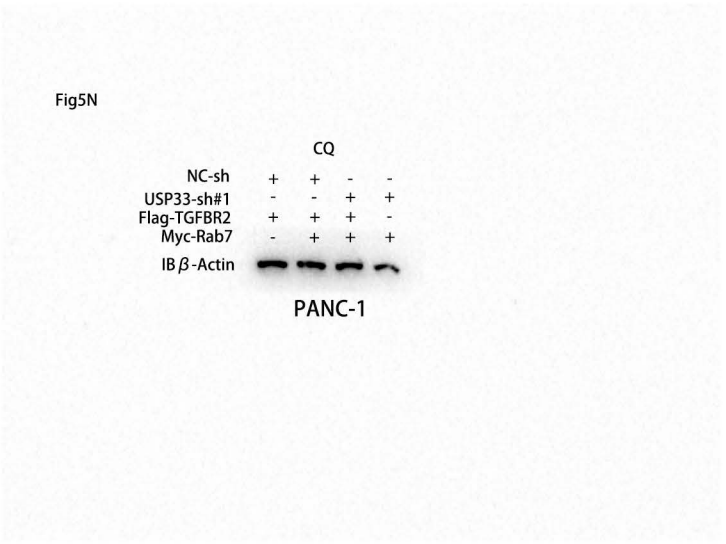

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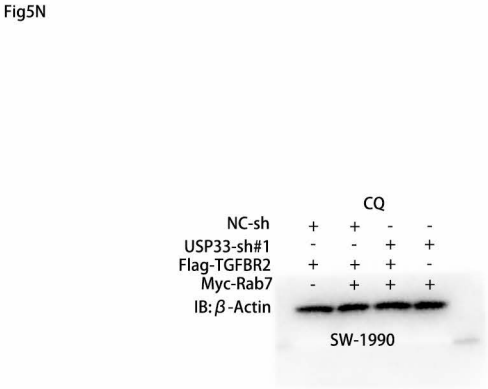

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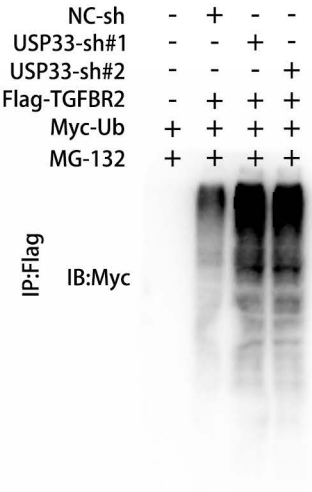

PANC-1

Fig6A

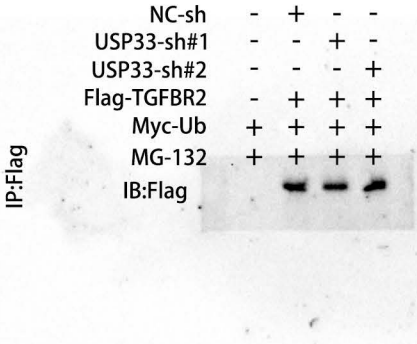

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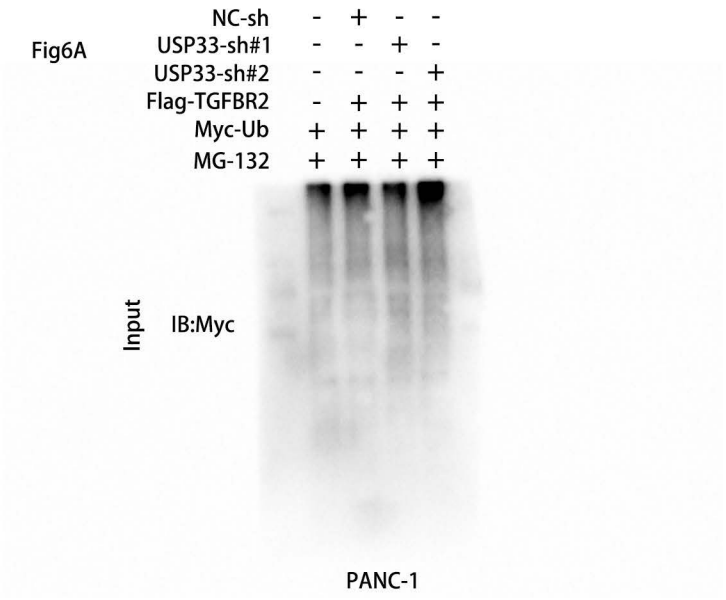
Fig6A



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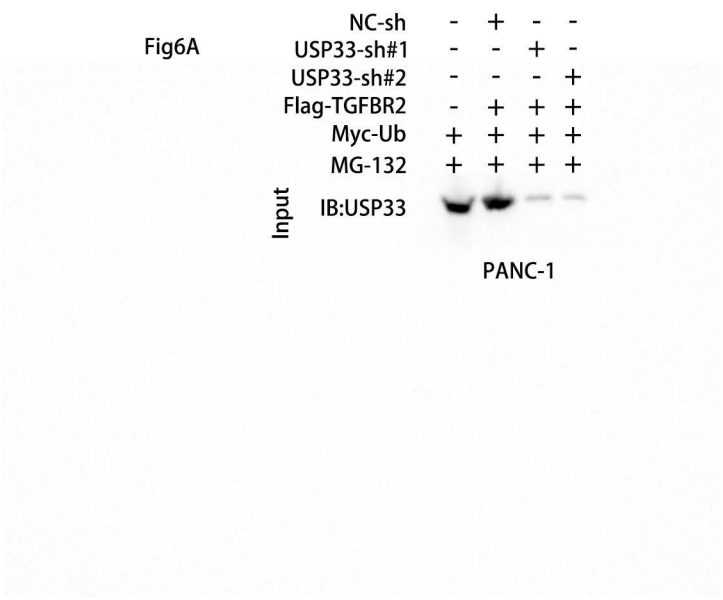


Fig6A

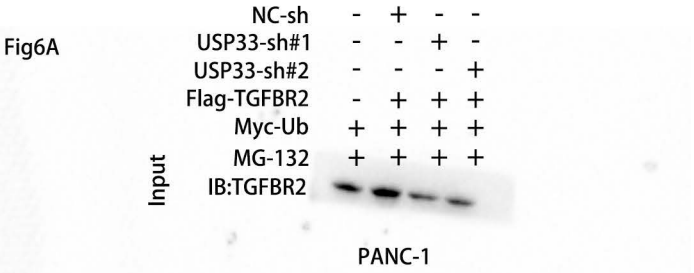
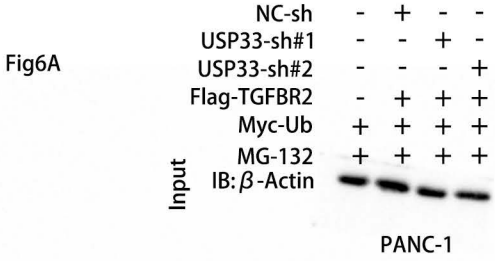


Fig6A



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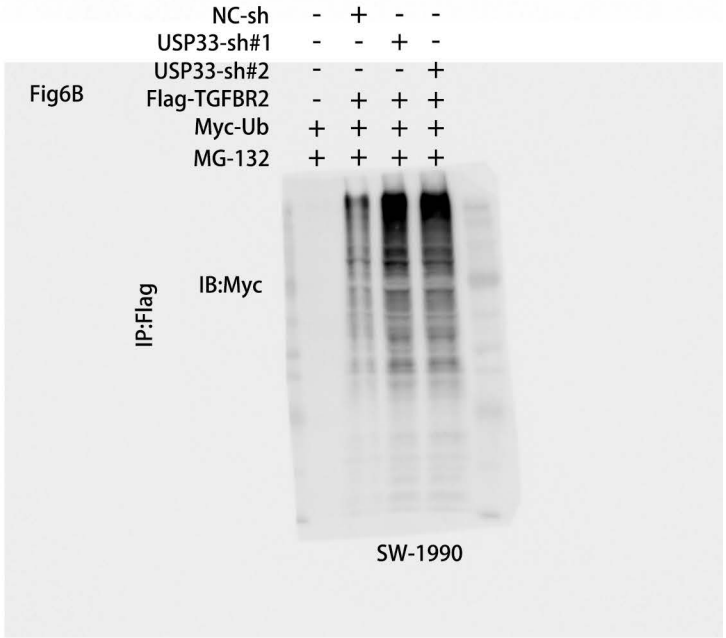
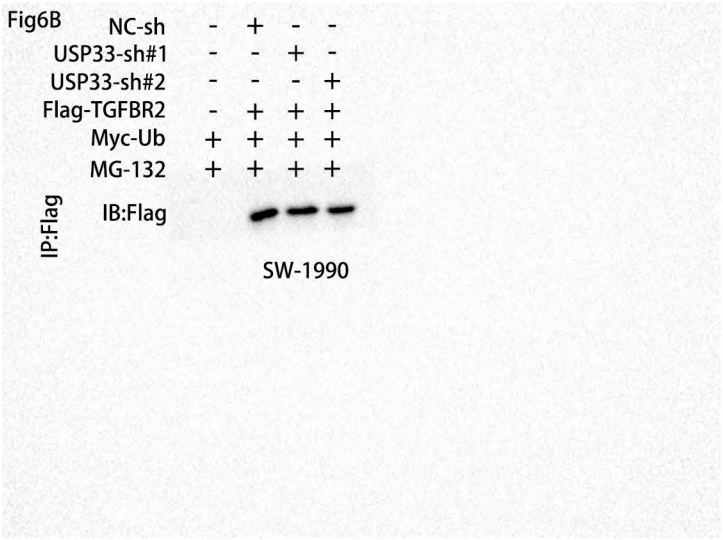


Fig6B



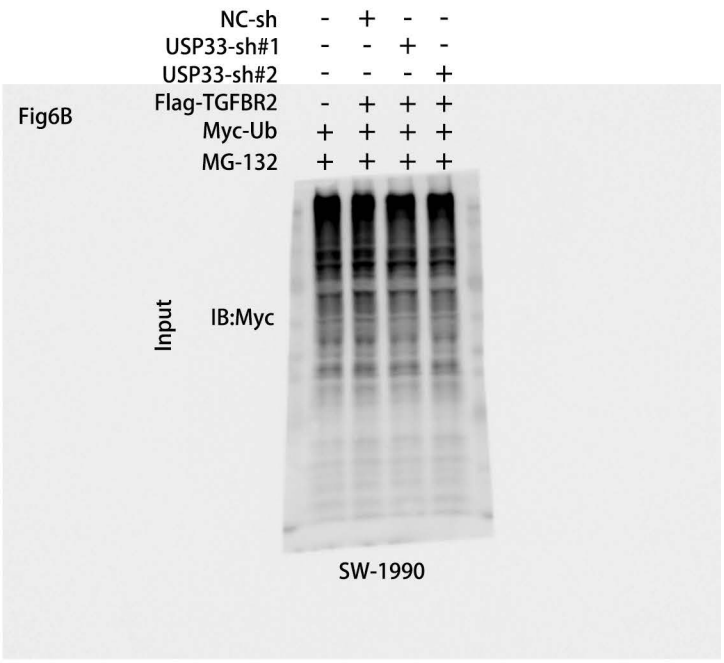


Fig6B
NC-sh - + - -
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USP33-sh#2 - - - +
Flag-TGFBR2 - + + +
Myc-Ub + + + +
MG-132 + + + +
Input
IB:Myc
SW-1990

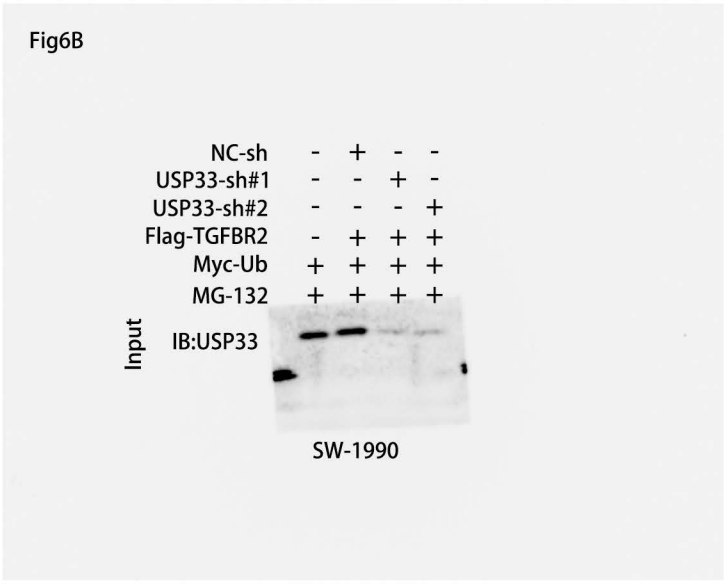
Fig6B
NC-sh - + - -
USP33-sh#1 - - + -
USP33-sh#2 - - - +
Flag-TGFBR2 - + + +
Myc-Ub + + + +
MG-132 + + + +
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SW-1990

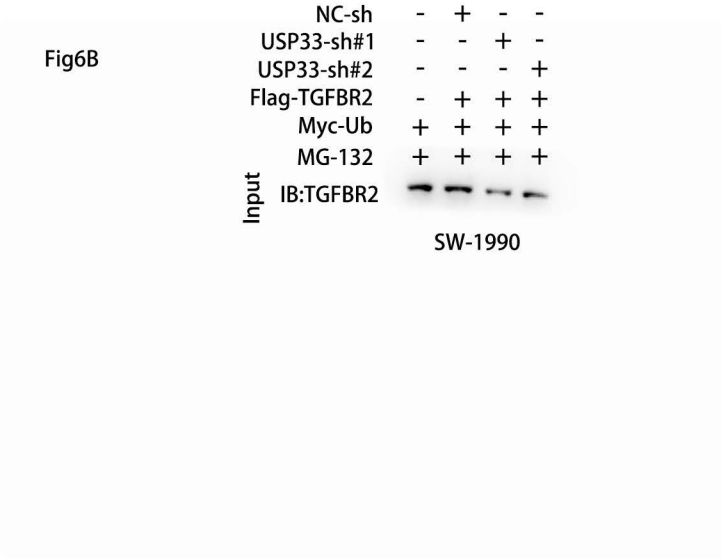
Fig6B
NC-sh - + - -
USP33-sh#1 - - + -
USP33-sh#2 - - - +
Flag-TGFBR2 - + + +
Myc-Ub + + + +
MG-132 + + + +
Input
IB:TGFBR2
SW-1990

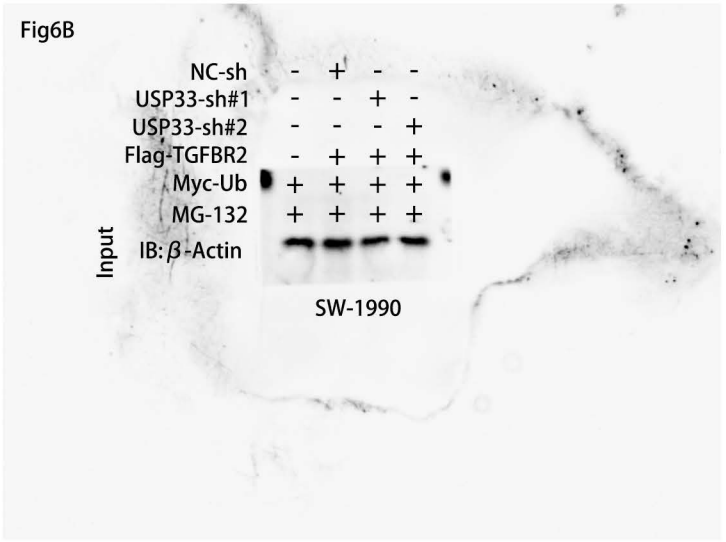
Fig6B
NC-sh - + - -
USP33-sh#1 - - + -
USP33-sh#2 - - - +
Flag-TGFBR2 - + + +
Myc-Ub + + + +
MG-132 + + + +
Input
IB:β-Actin
SW-1990

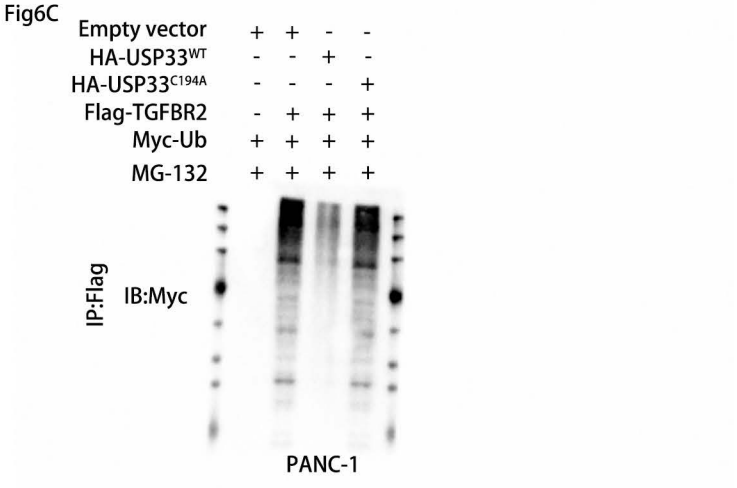
Fig6C
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HA-USP33C194A - - - +
Flag-TGFBR2 - + + +
Myc-Ub + + + +
MG-132 + + + +
IP:Flag
IB:Myc
PANC-1

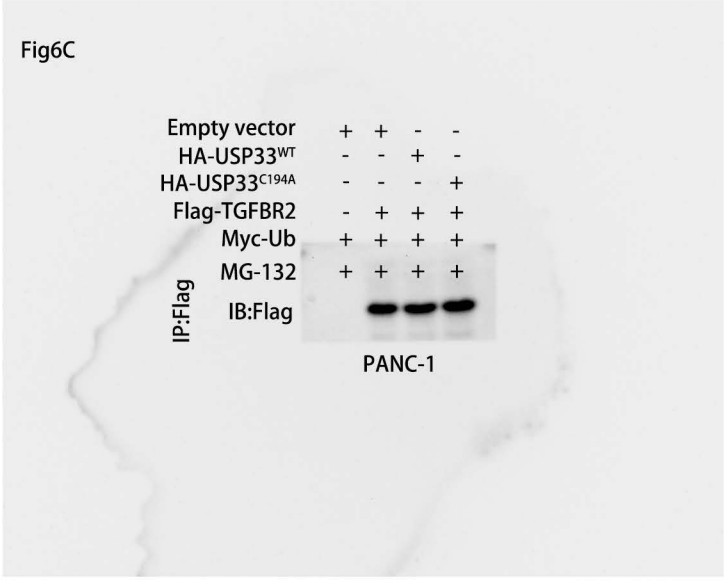
Fig6C
Empty vector + + - -
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HA-USP33C194A - - - +
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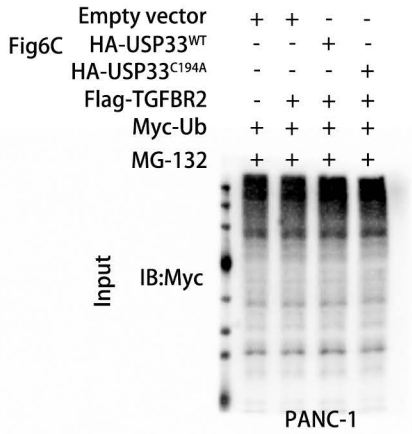
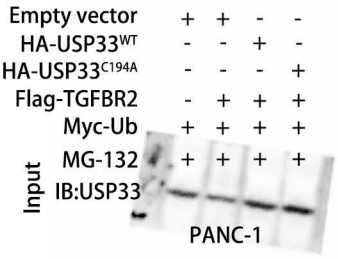
Myc-Ub + + + +
MG-132 + + + +
IP:Flag
IB:Flag
PANC-1

Fig6C





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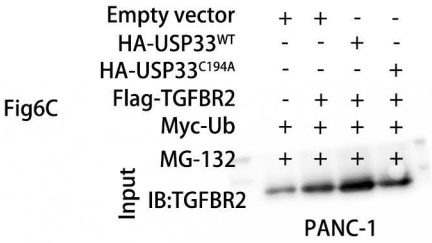

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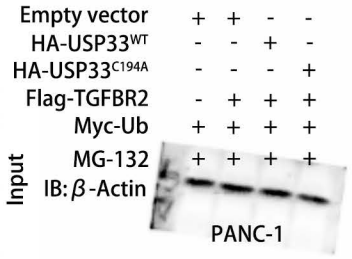


Fig6D

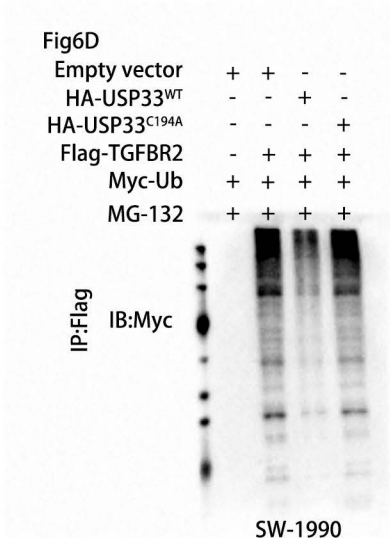


Fig6D

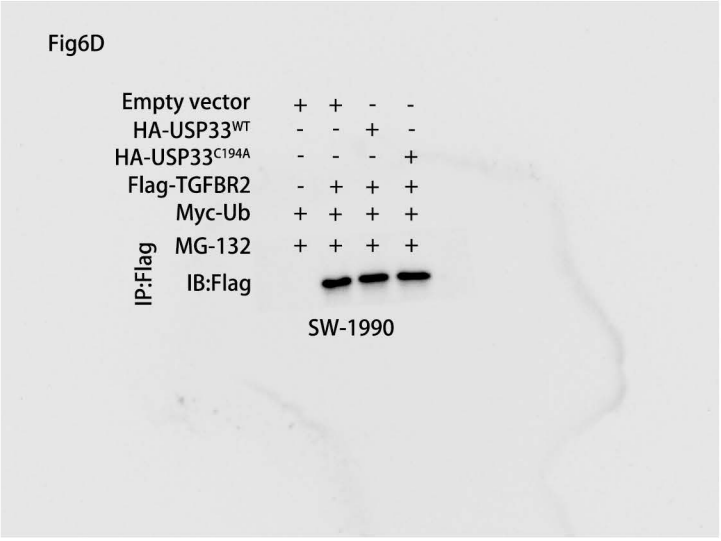


Fig6D

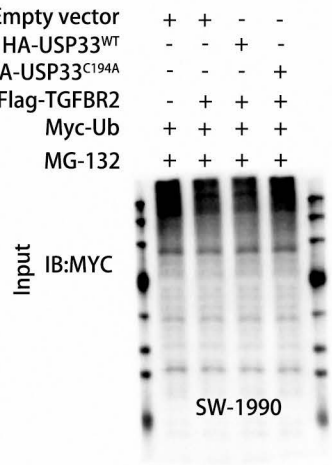


Fig6D

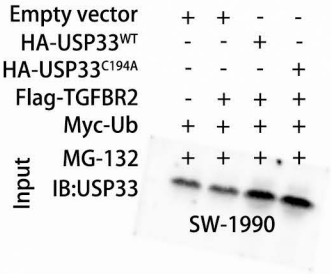


Fig6D

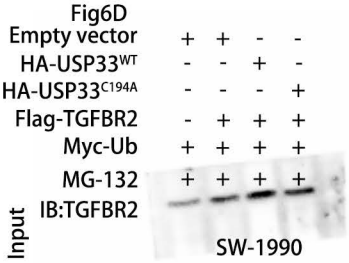


Fig6D

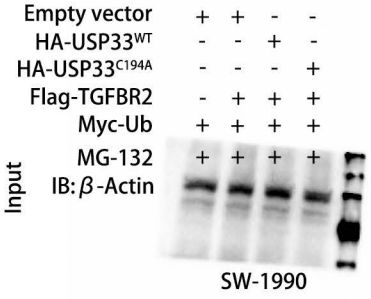
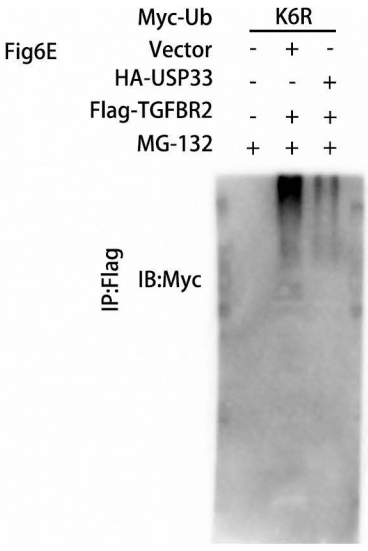


Fig6E



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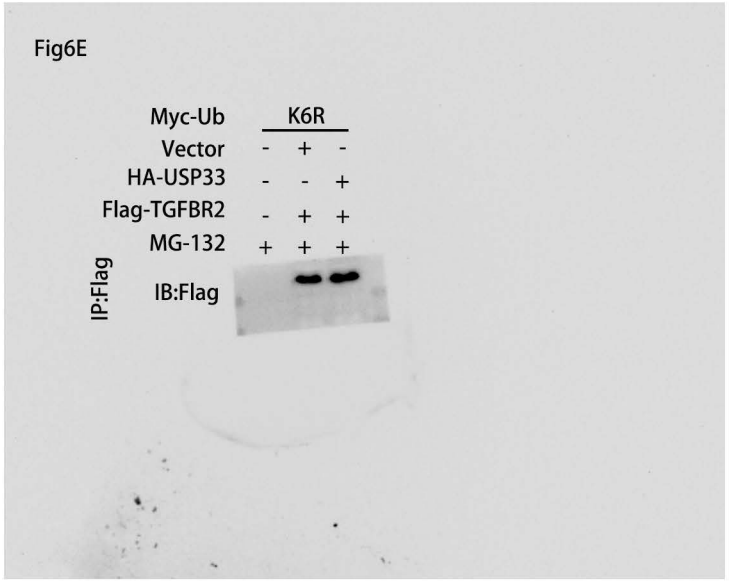


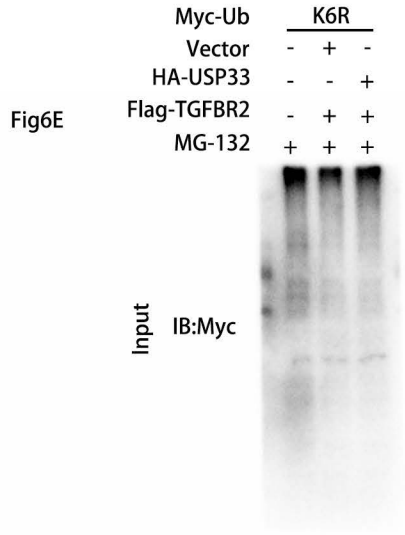
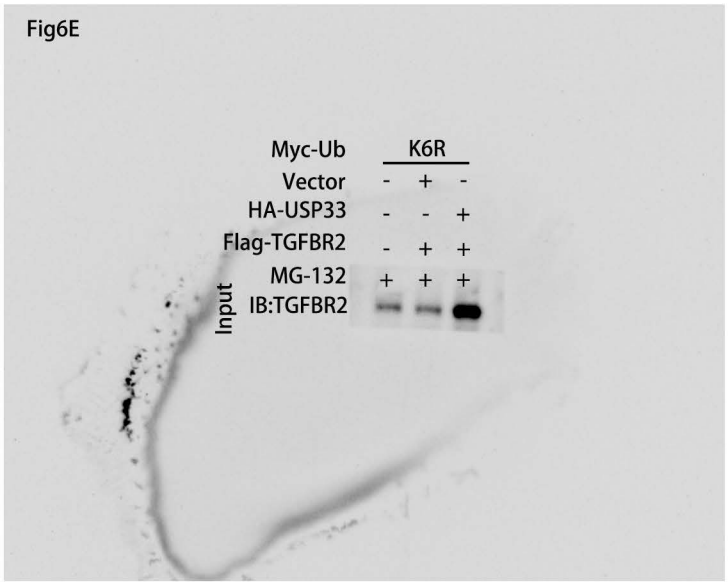


Fig6E
Myc-Ub
K6R
Vector - + -
HA-USP33 - - +
Flag-TGFBR2 - + +
MG-132 + + +
Input
IB:Myc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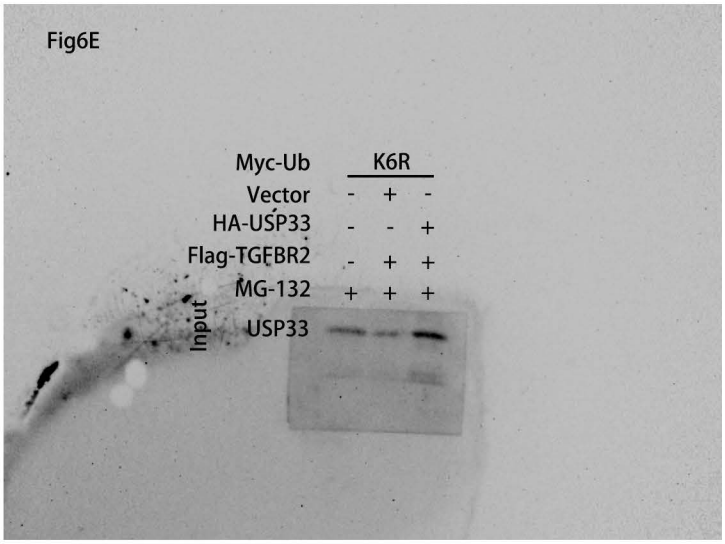
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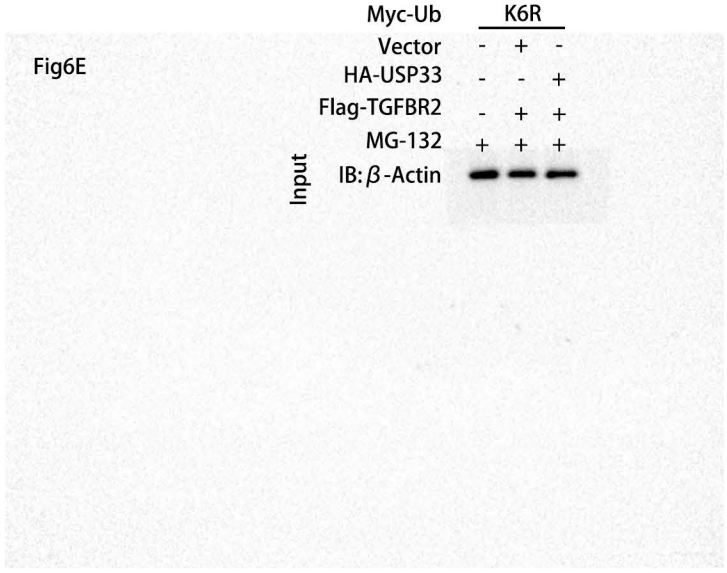
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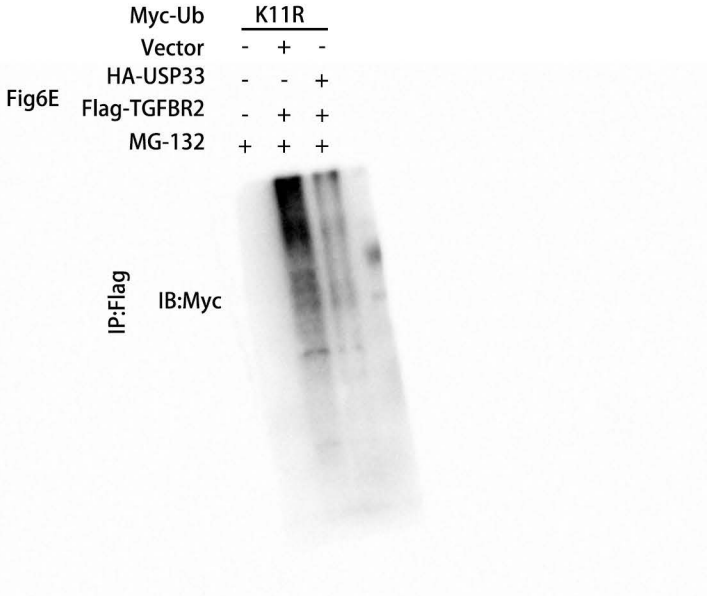
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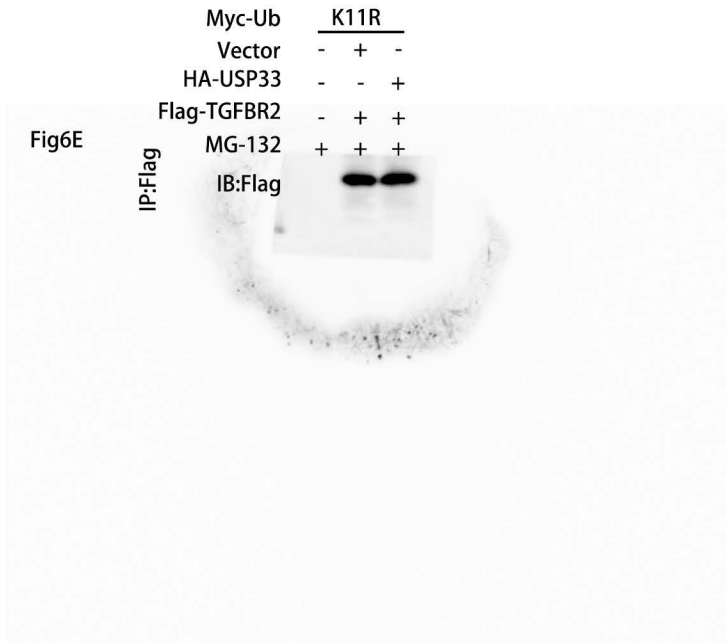
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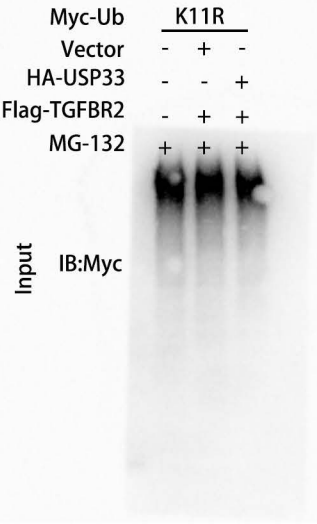
Fig6E



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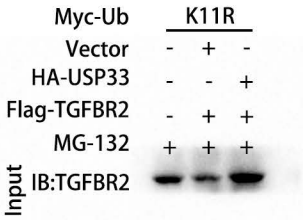


Fig6E

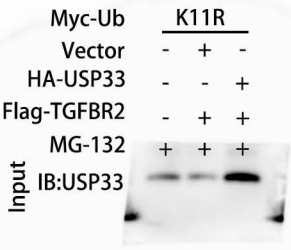
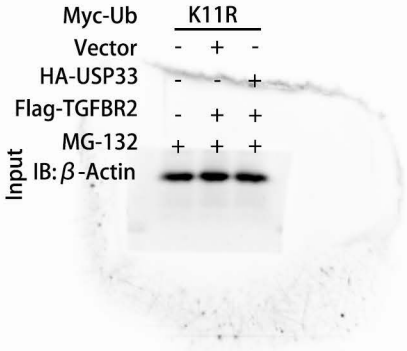


Fig6E



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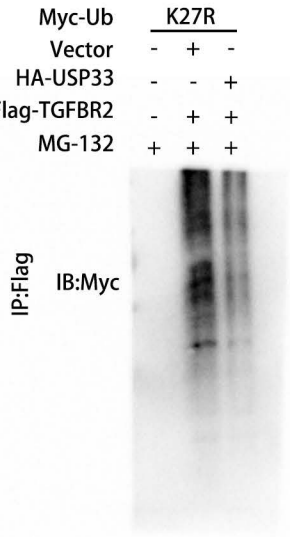

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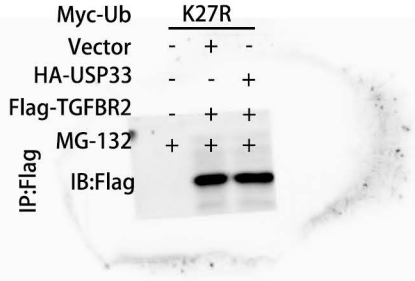


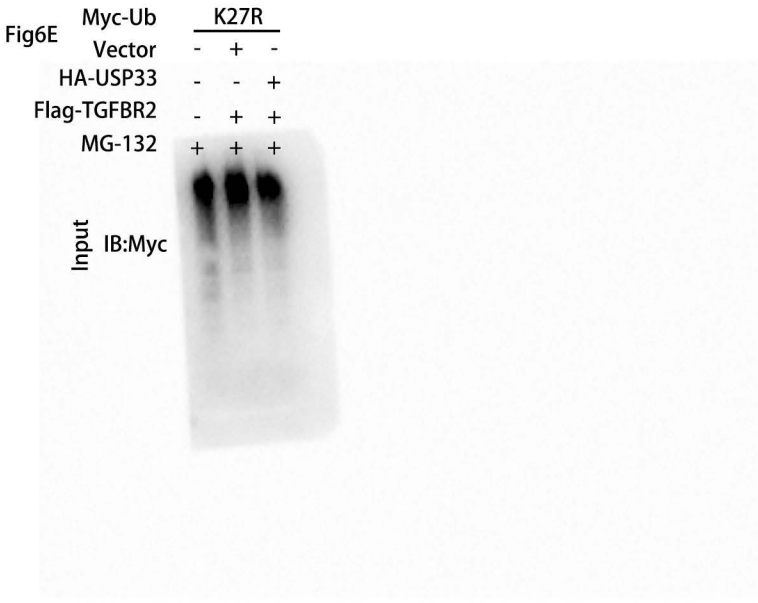
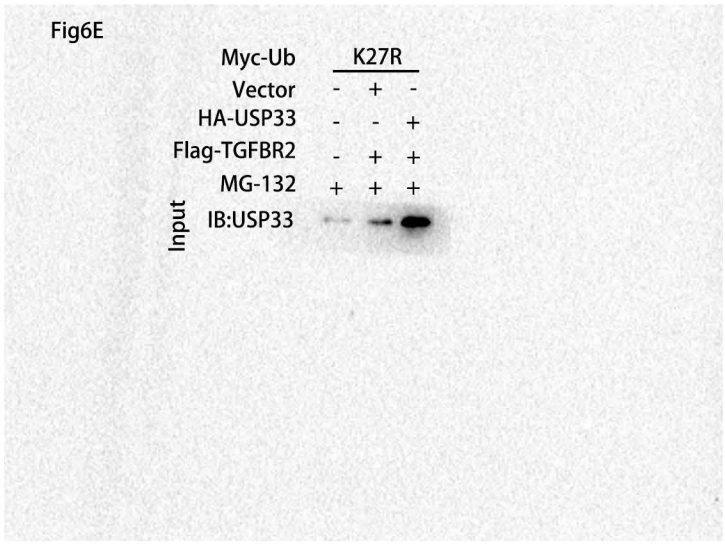


Fig6E
Myc-Ub
K27R
Vector - + -
HA-USP33 - - +
Flag-TGFBR2 - + +
MG-132 + + +
Input
IB:Myc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K27R
Vector - + -
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MG-132 + + +
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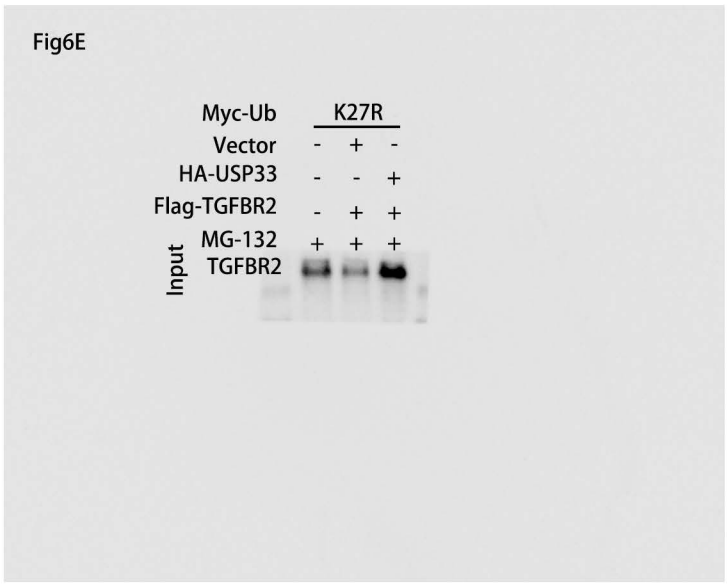
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Myc-Ub
K27R
Vector - + -
HA-USP33 - - +
Flag-TGFBR2 - + +
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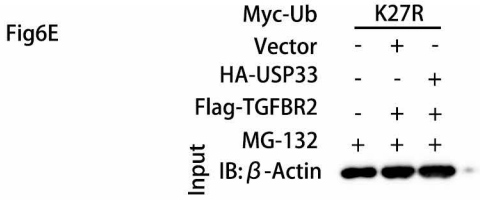
Input
TGFBR2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Myc-Ub
K27R
Vector - + -
HA-USP33 - - +
Flag-TGFBR2 - + +
MG-132 + + +
Input
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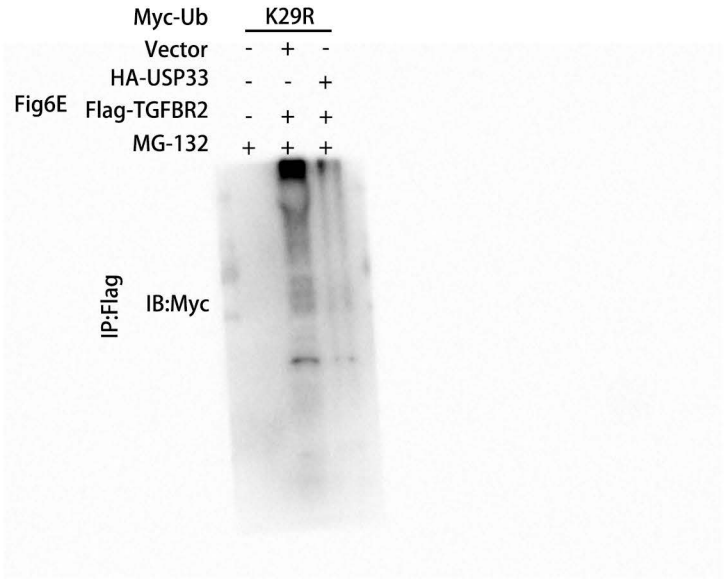
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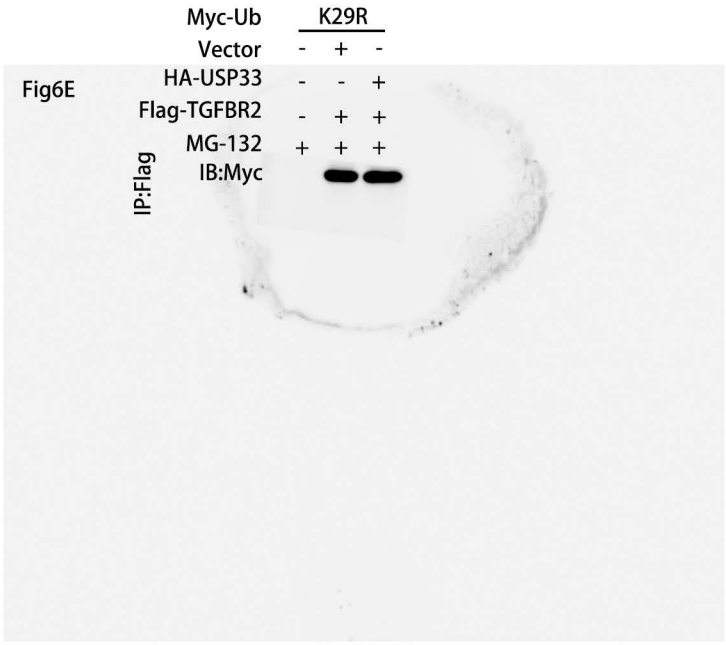
Myc-Ub
K29R
Vector - + -
HA-USP33 - - +
Flag-TGFBR2 - + +
MG-132 + + +
IP:Flag
IB:Myc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Myc-Ub
K29R
Vector - + -
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Flag-TGFBR2 - + +
MG-132 + + +
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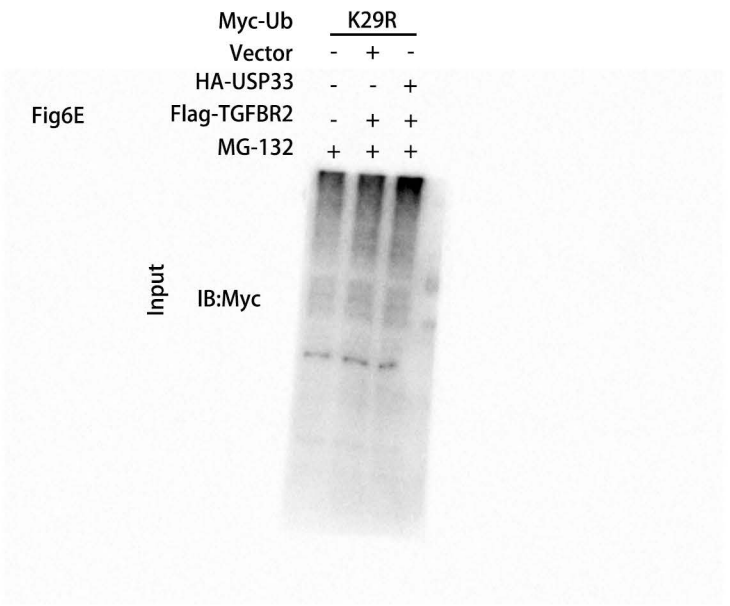
Fig6E



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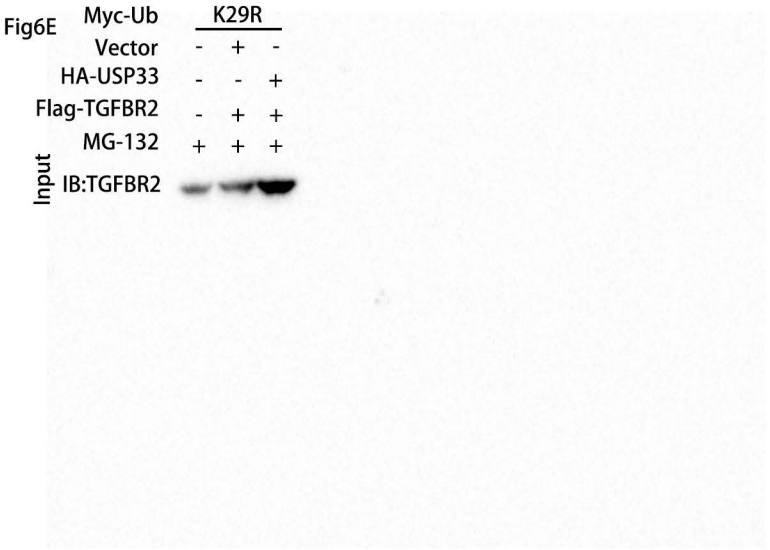

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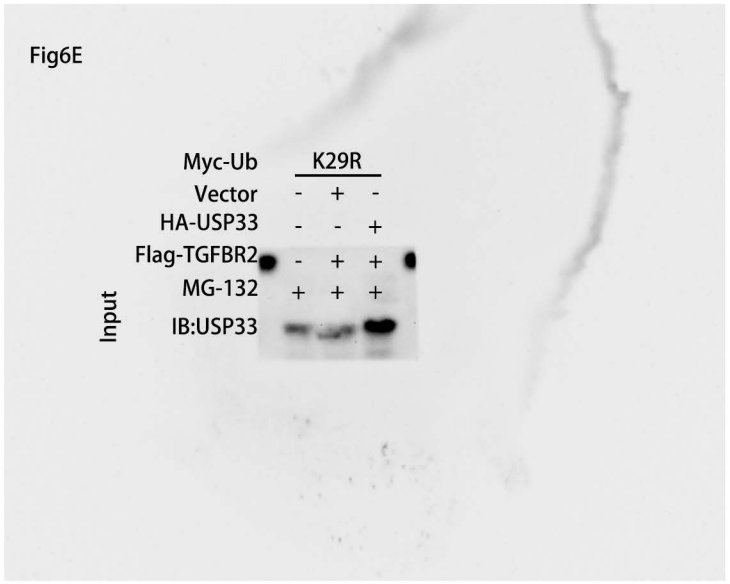

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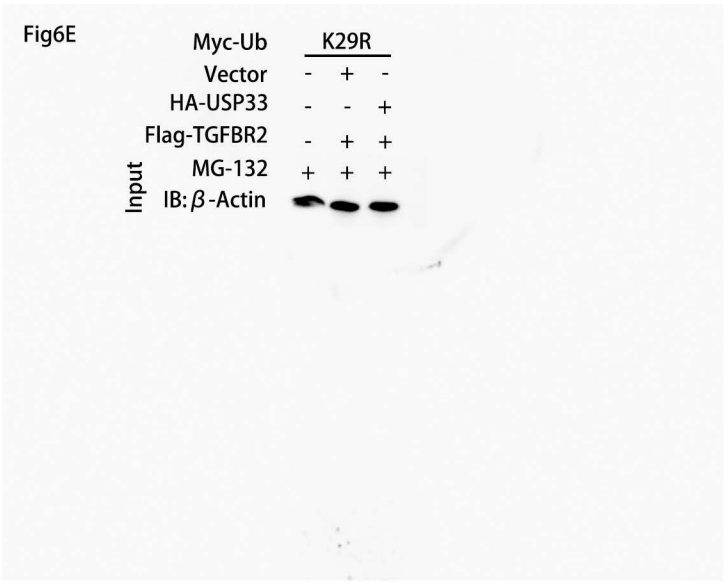

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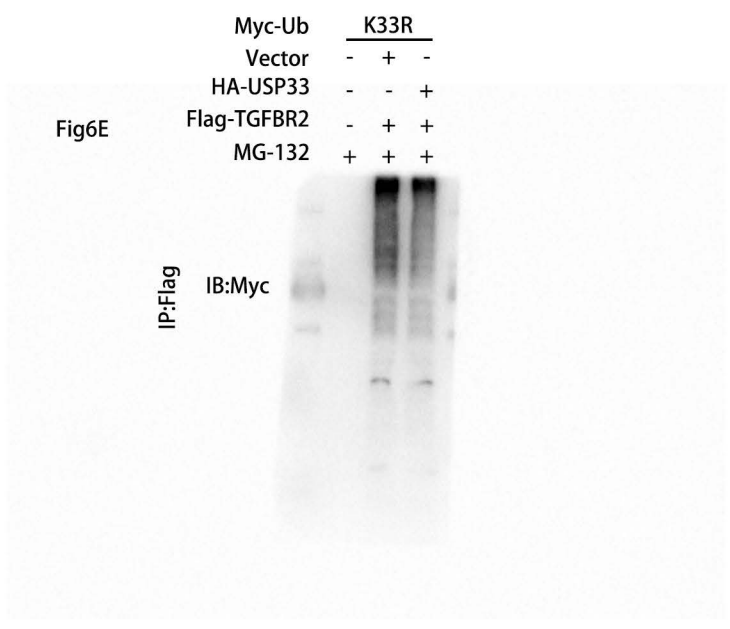

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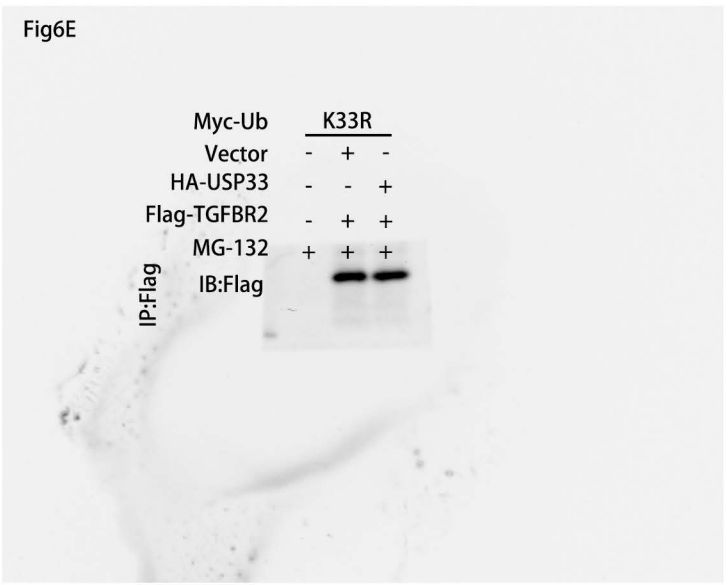
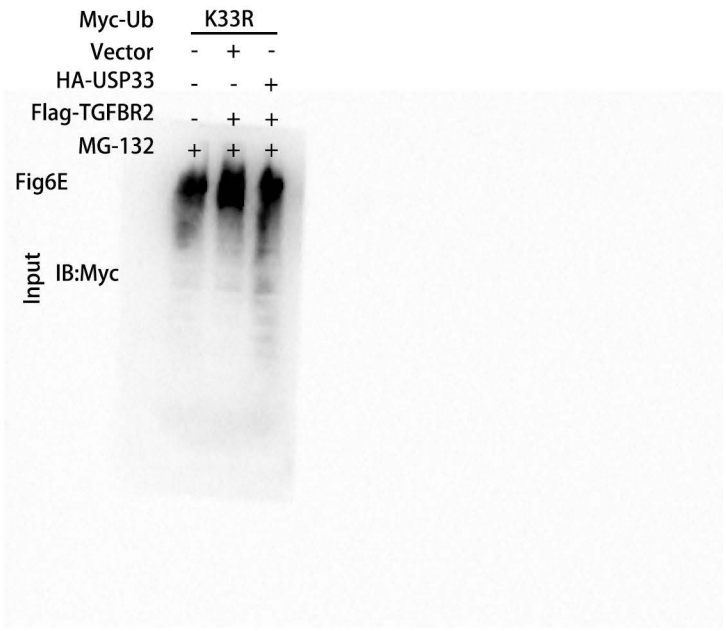
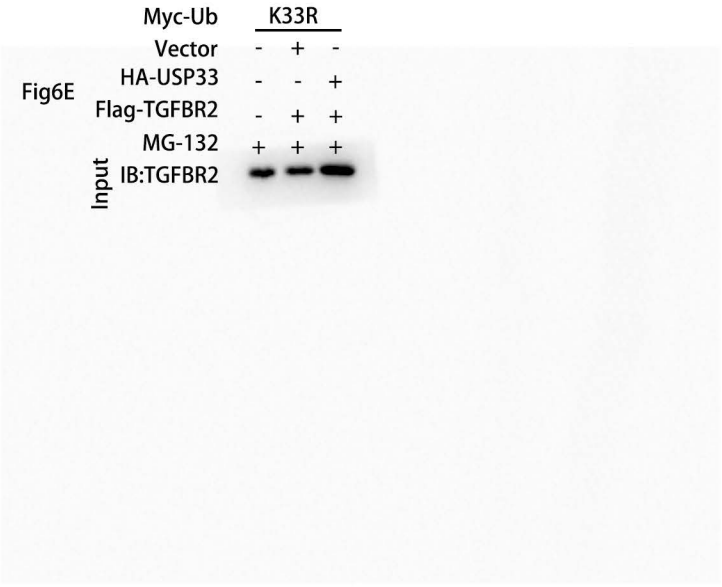



Myc-Ub K33R
Vector - + -
HA-USP33 - - +
Flag-TGFBR2 - + +
MG-132 + + +
Fig6E
Input IB:Myc


Myc-Ub K33R
Vector - + -
HA-USP33 - - +
Flag-TGFBR2 - + +
MG-132 + + +
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Input IB:TGFBR2

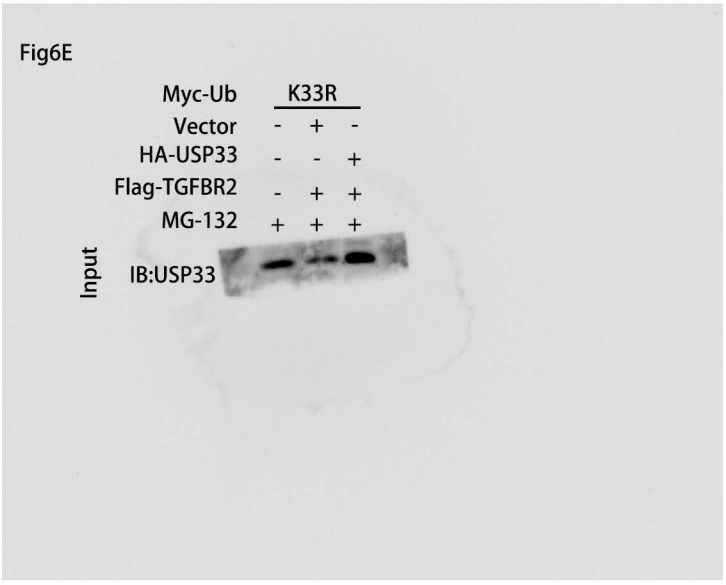


Fig6E
Myc-Ub K33R
Vector - + -
HA-USP33 - - +
Flag-TGFBR2 - + +
MG-132 + + +
Input IB:USP33

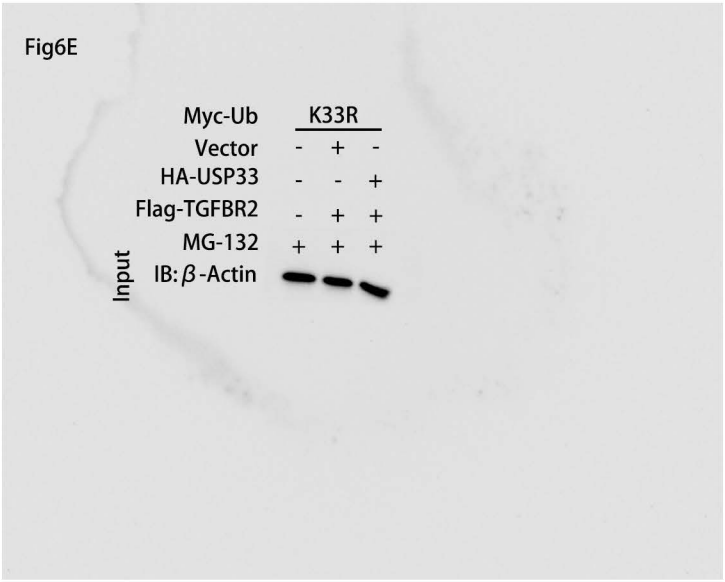


Fig6E
Myc-Ub K33R
Vector - + -
HA-USP33 - - +
Flag-TGFBR2 - + +
MG-132 + + +
Input IB:β-Actin

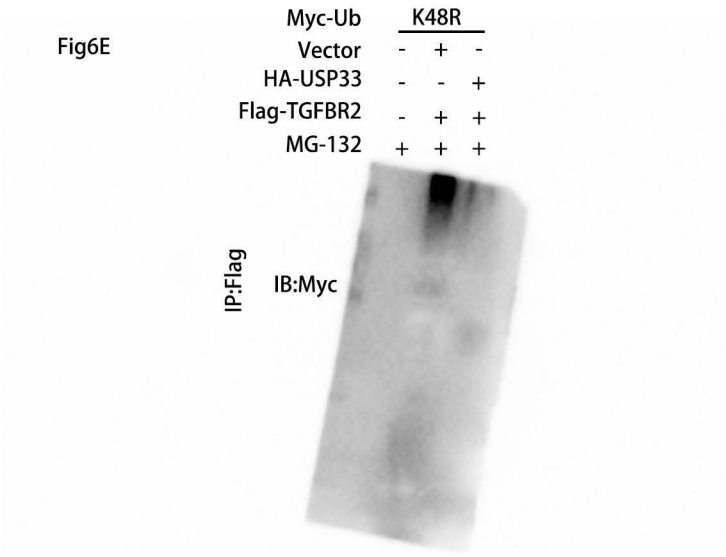


Fig6E
Myc-Ub K48R
Vector - + -
HA-USP33 - - +
Flag-TGFBR2 - + +
MG-132 + + +
IP:Flag IB:Myc

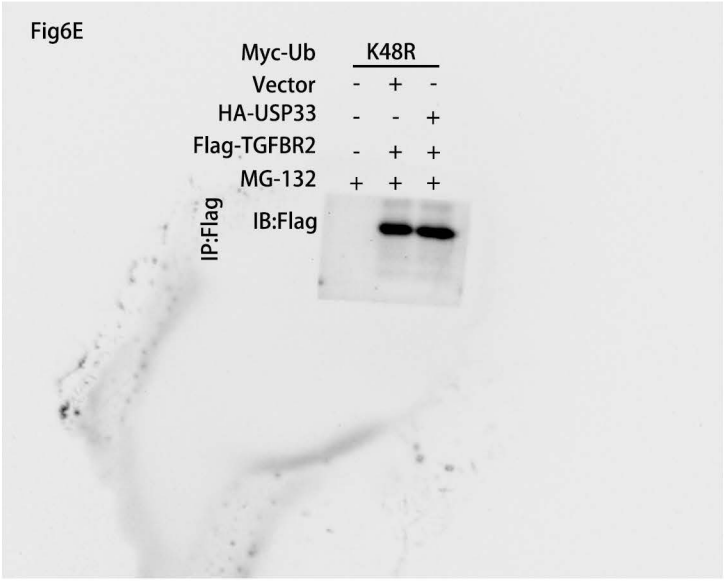


Fig6E
Myc-Ub K48R
Vector - + -
HA-USP33 - - +
Flag-TGFBR2 - + +
MG-132 + + +
IP:Flag IB:Flag

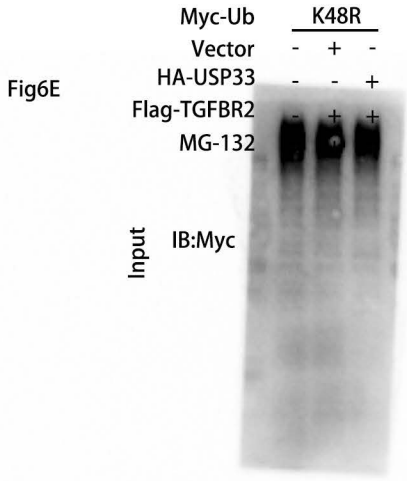
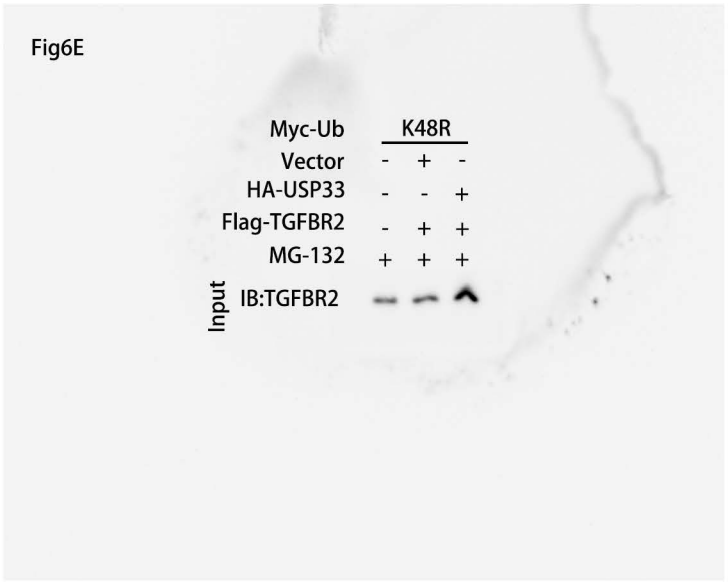


Fig6E
Myc-Ub
K48R
Vector - + -
HA-USP33 - - +
Flag-TGFBR2 - + +
MG-132 + + +
Input
IB:Myc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Myc-Ub
K48R
Vector - + -
HA-USP33 - - +
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Input
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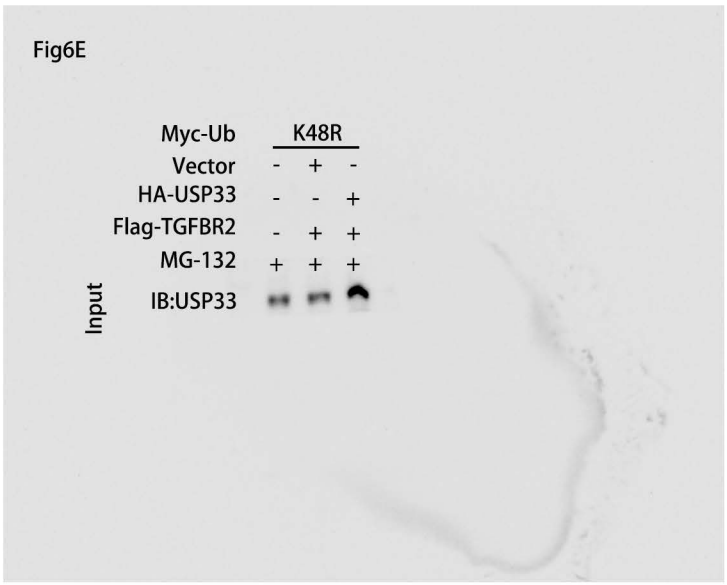
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Myc-Ub
K48R
Vector - + -
HA-USP33 - - +
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MG-132 + + +
Input
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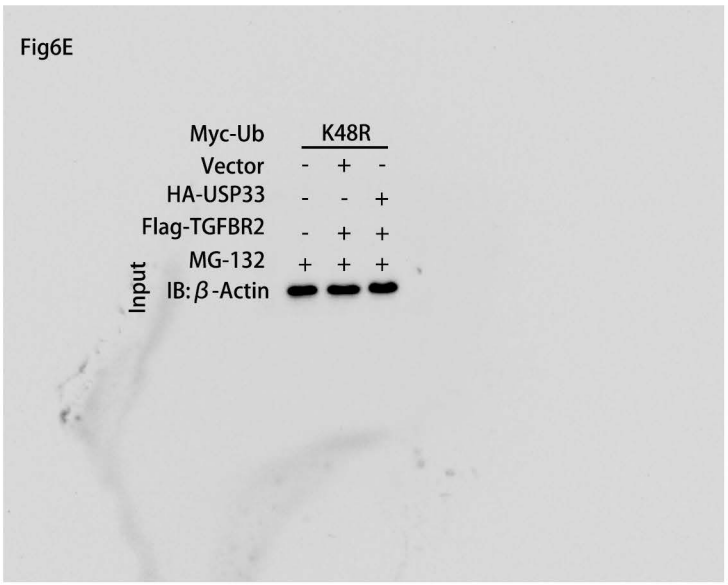
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Myc-Ub
K48R
Vector - + -
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Flag-TGFBR2 - + +
MG-132 + + +
Input
IB:β-Actin

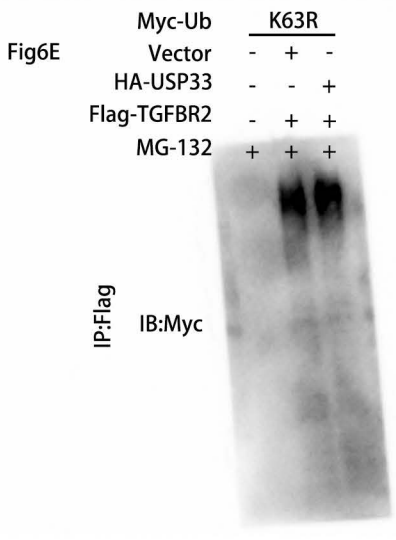
Fig6E
Myc-Ub
K63R
Vector - + -
HA-USP33 - - +
Flag-TGFBR2 - + +
MG-132 + + +
IP:Flag
IB:Myc

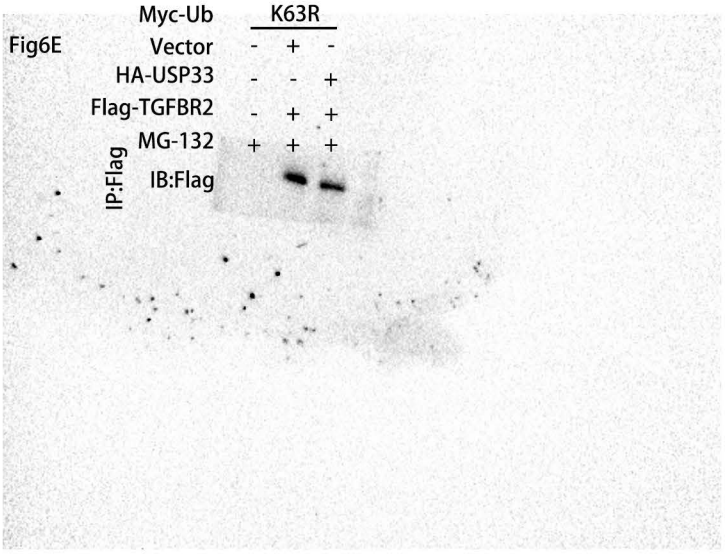
Fig6E
Myc-Ub
K63R
Vector - + -
HA-USP33 - - +
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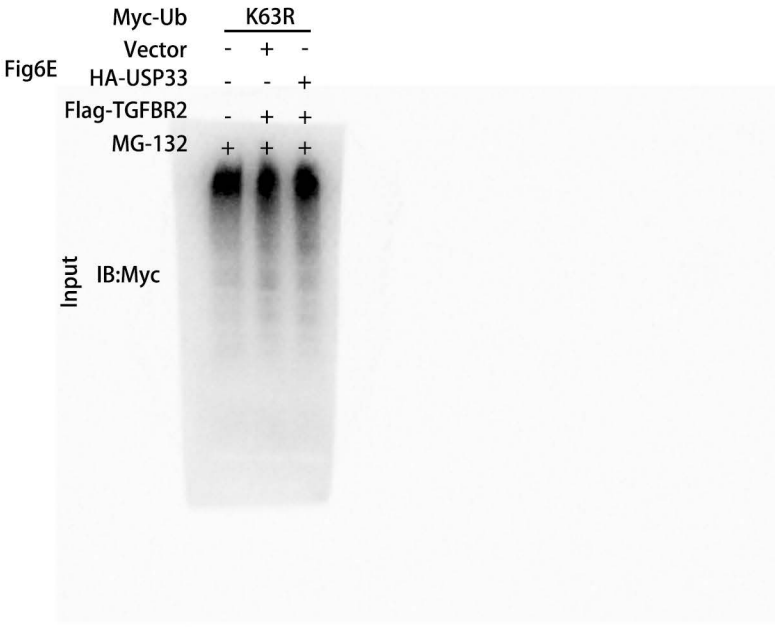
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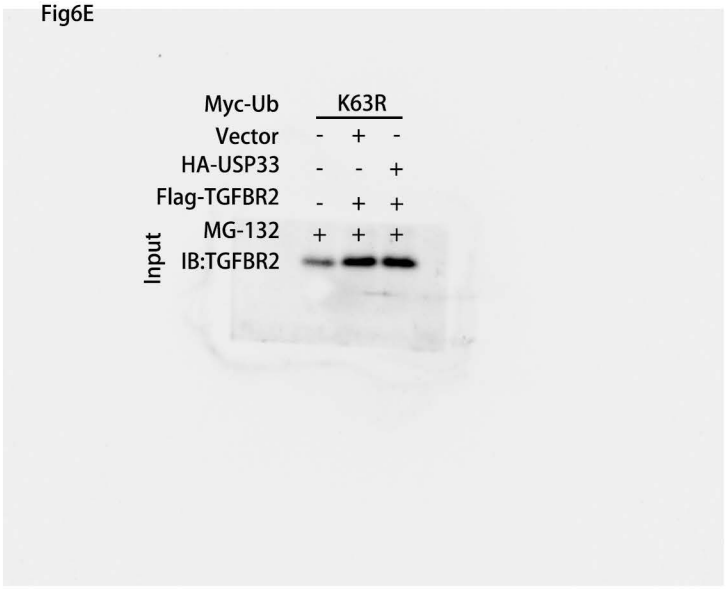
HA-USP33 - - +
Flag-TGFBR2 - + +
MG-132 + + +
Input IB:Myc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Myc-Ub K63R
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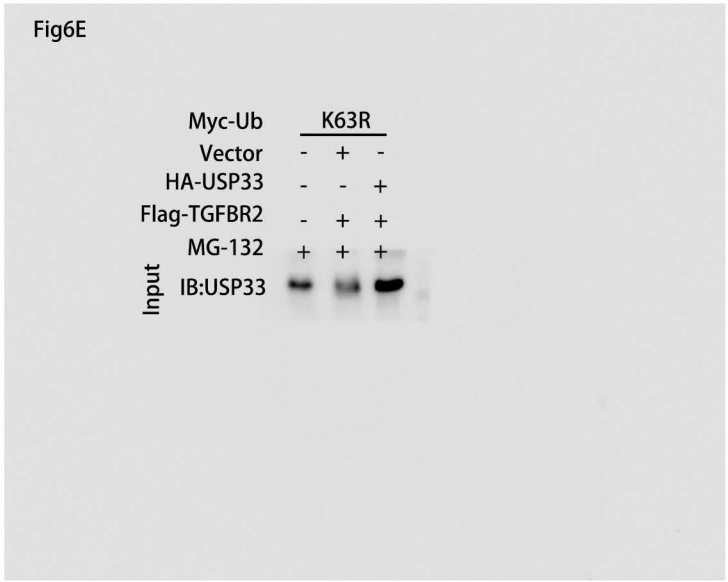
Input IB:TGFBR2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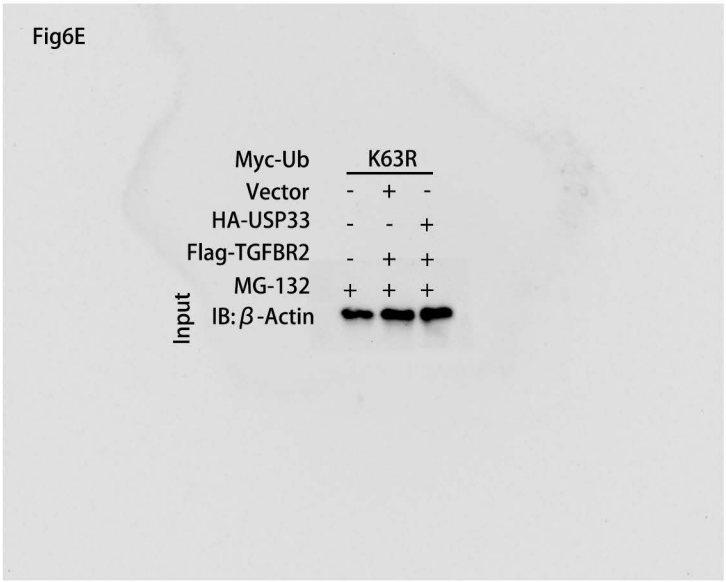
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Myc-Ub K63R
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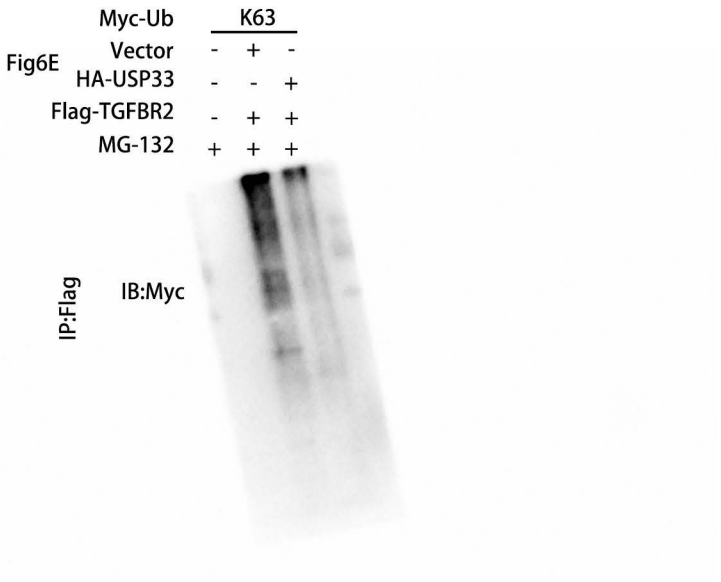
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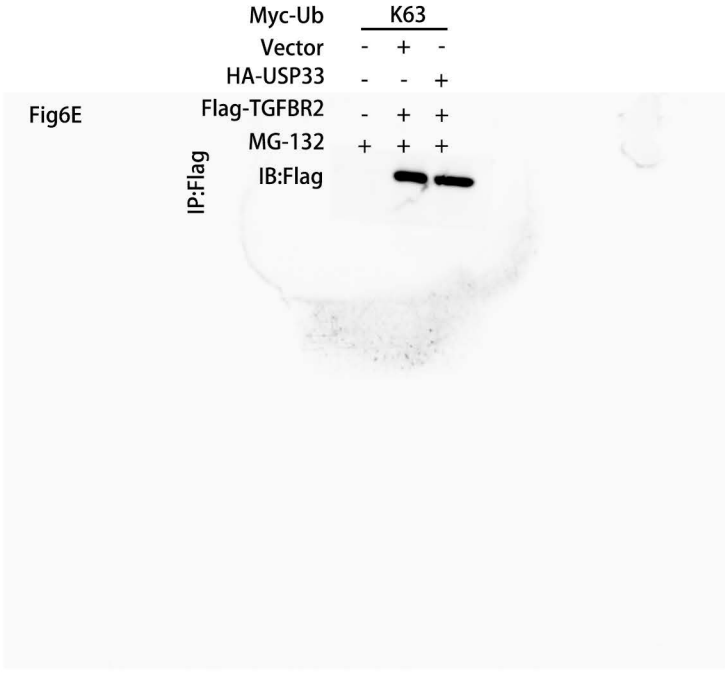
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Myc-Ub K63
Vector - + -
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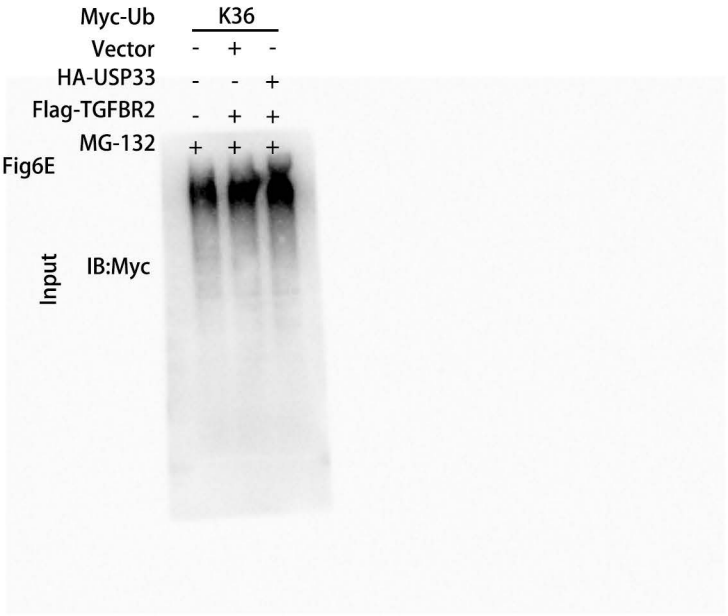
Myc-Ub
K36
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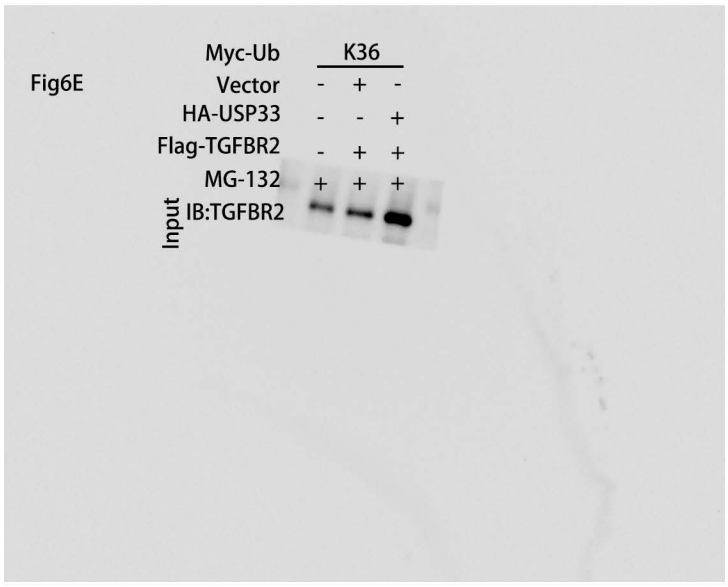
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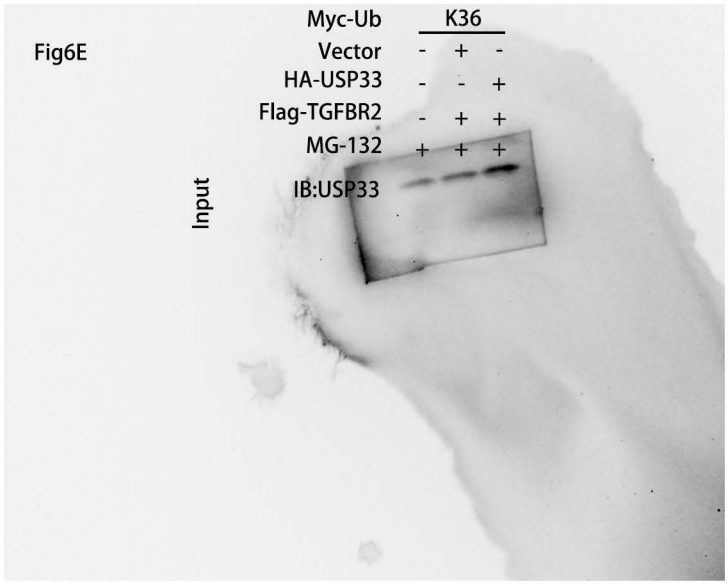
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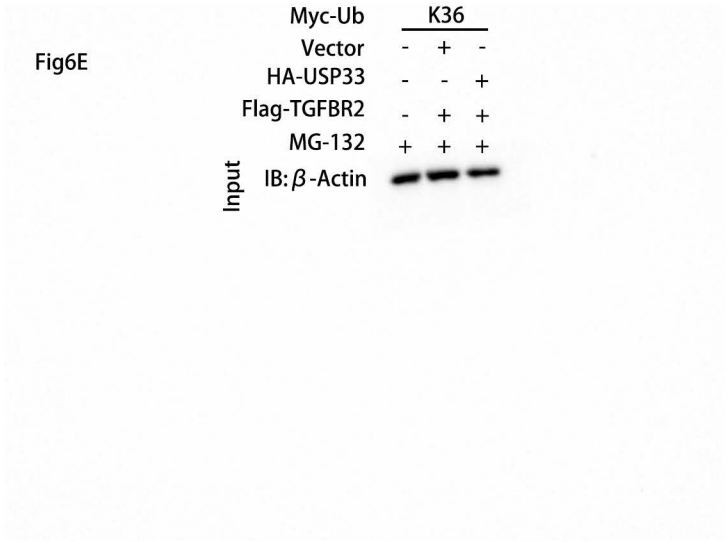
Fig6E
Myc-Ub
K36
Vector - + -
HA-USP33 - - +
Flag-TGFBR2 - + +
MG-132 + + +
Input
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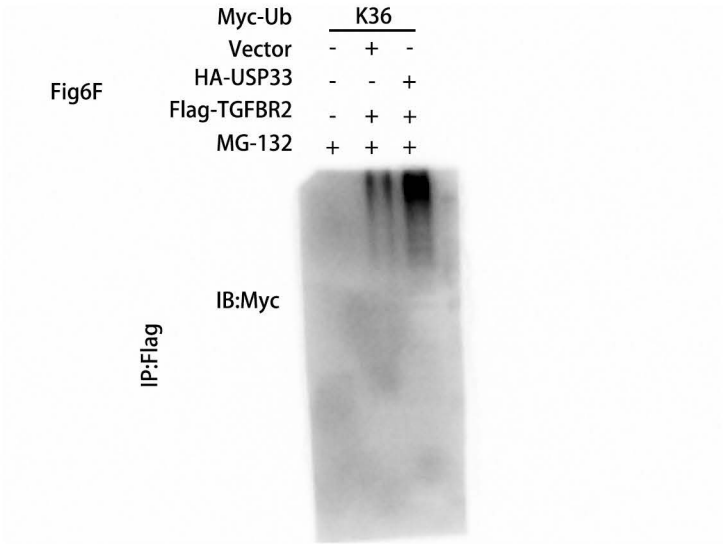
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K36
Vector - + -
HA-USP33 - - +
Flag-TGFBR2 - + +
MG-132 + + +
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IP:Flag

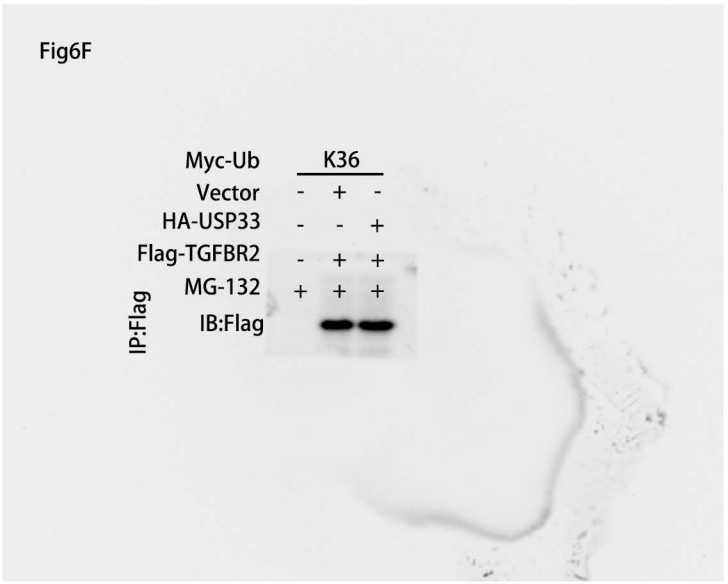
Fig6F
Myc-Ub
K36
Vector - + -
HA-USP33 - - +
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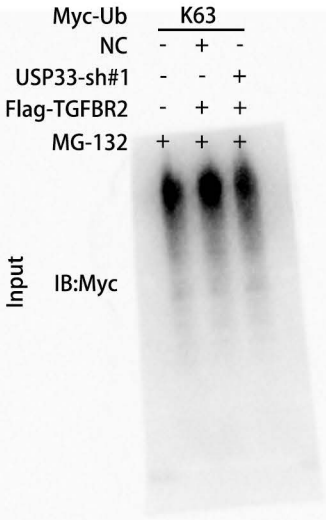
MG-132 + + +
IB:Flag
IP:Flag

Fig6F



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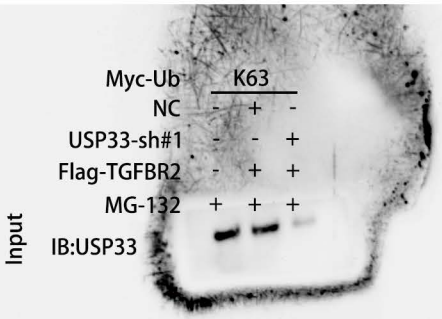

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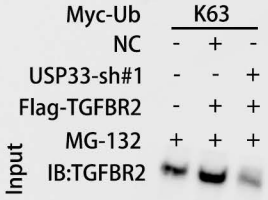
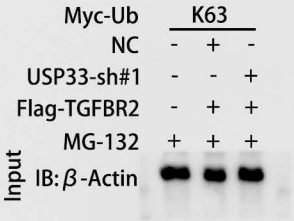


Fig6F



Input

Fig6G

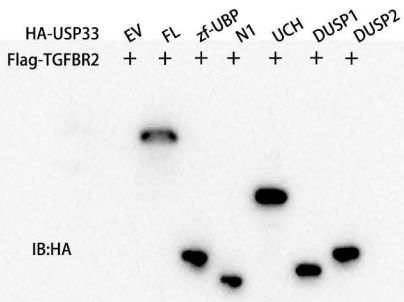
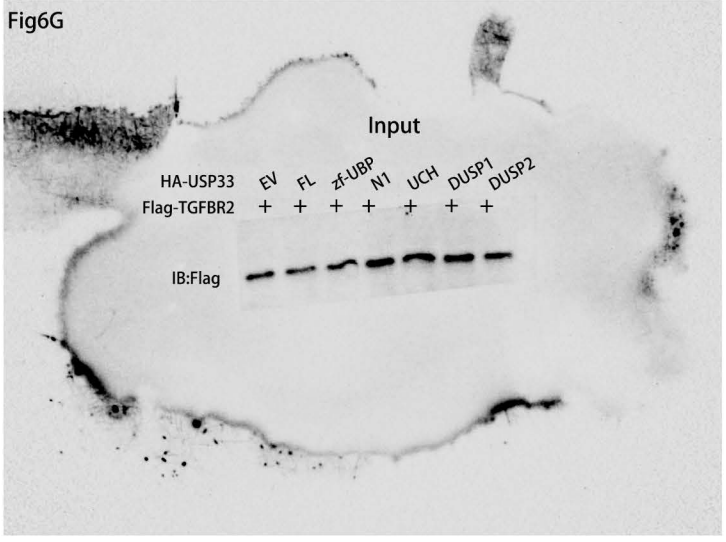


Fig6G



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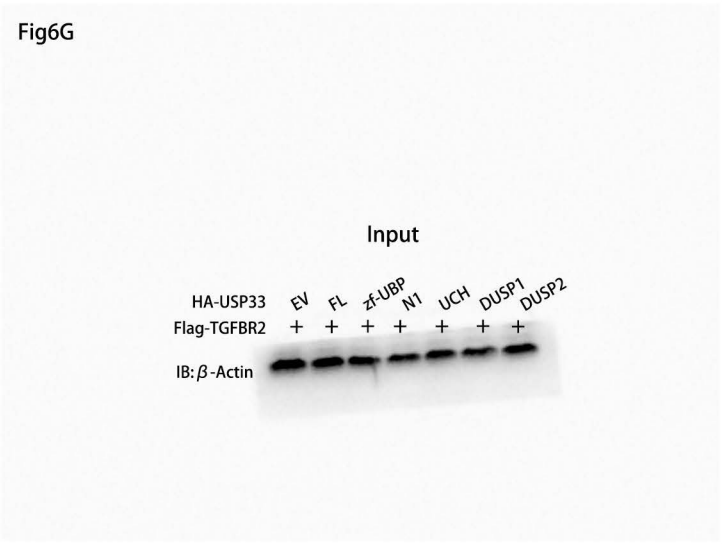

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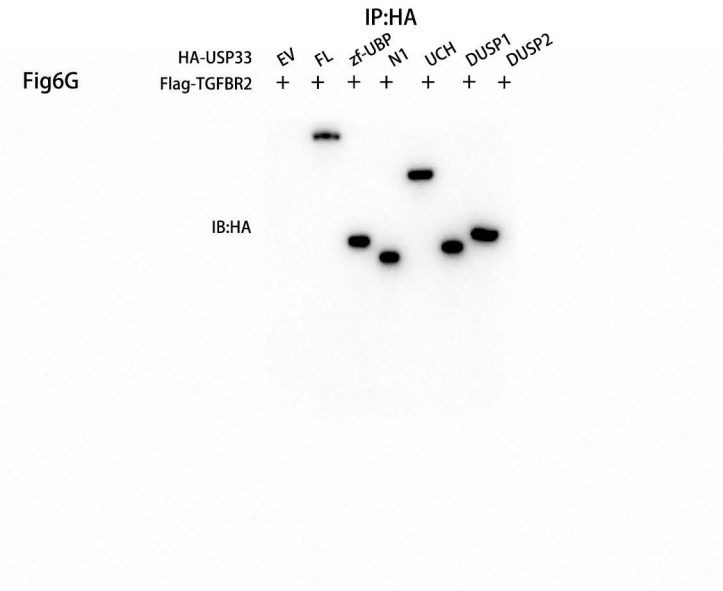

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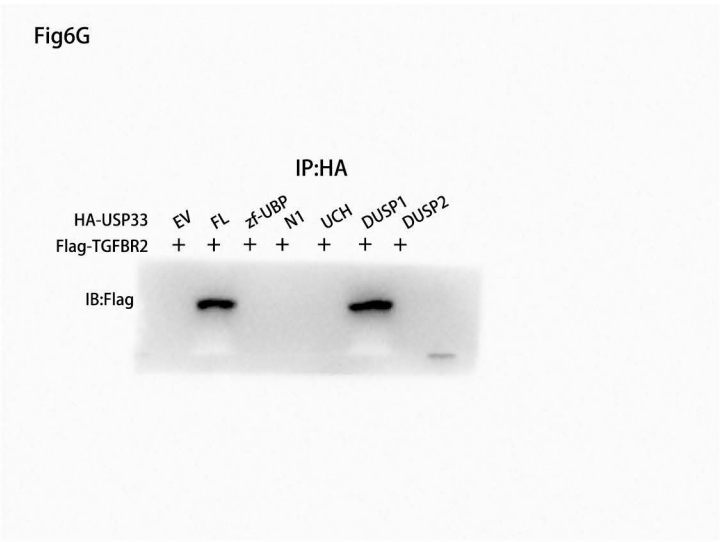

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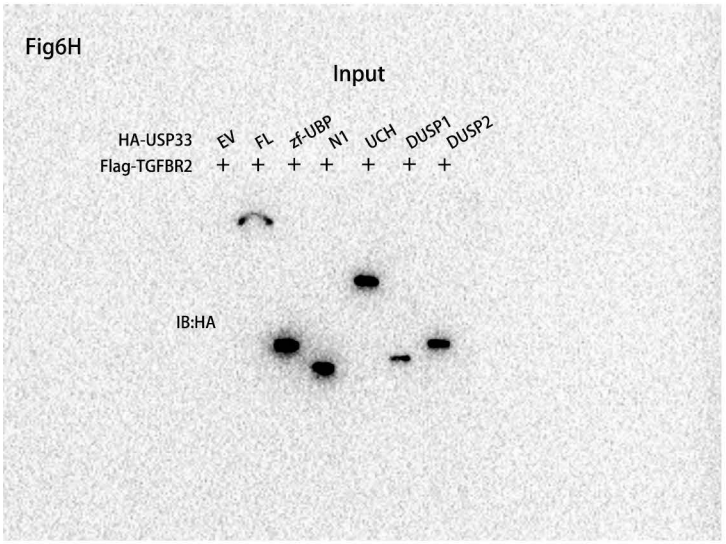

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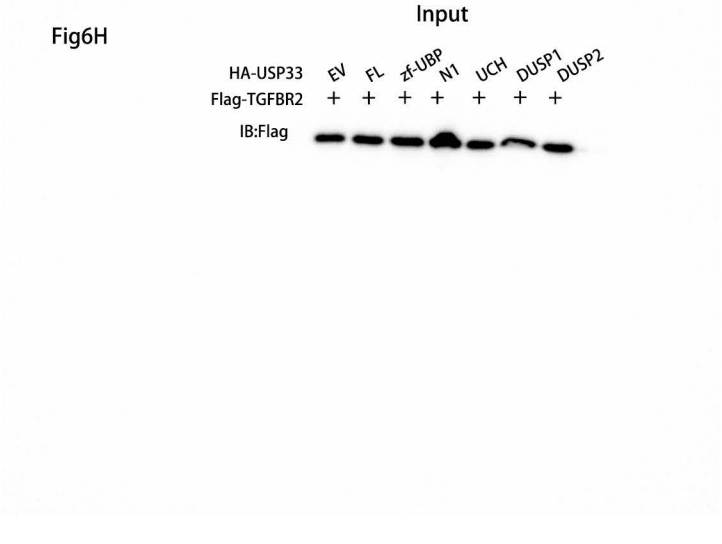

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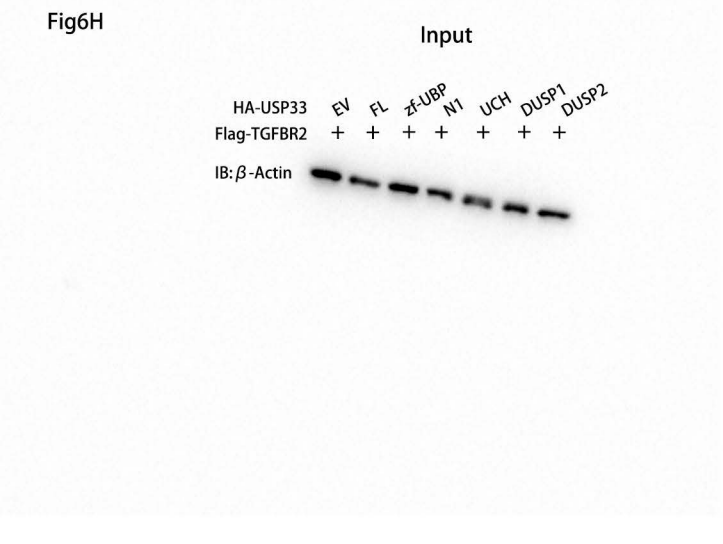

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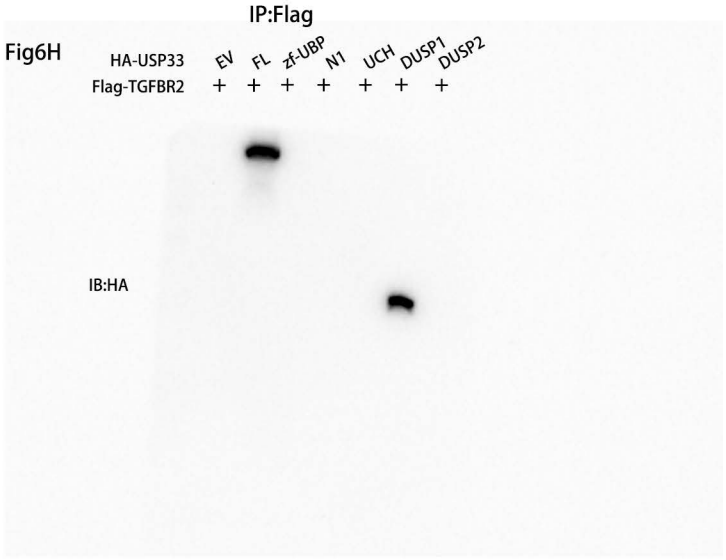

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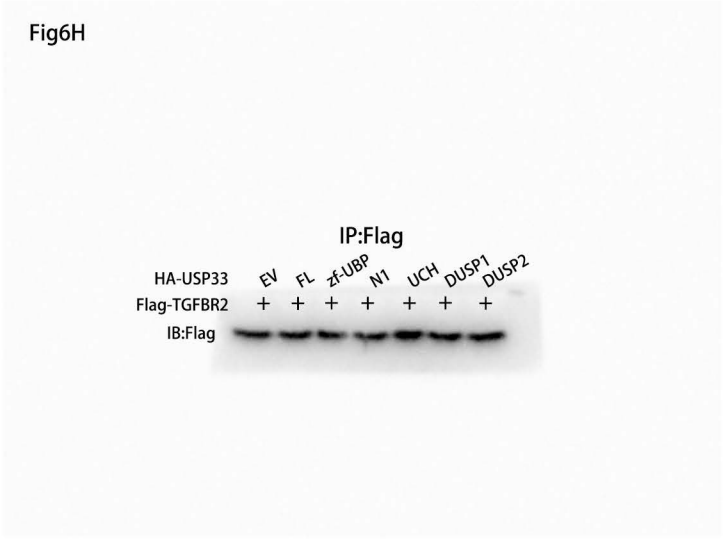

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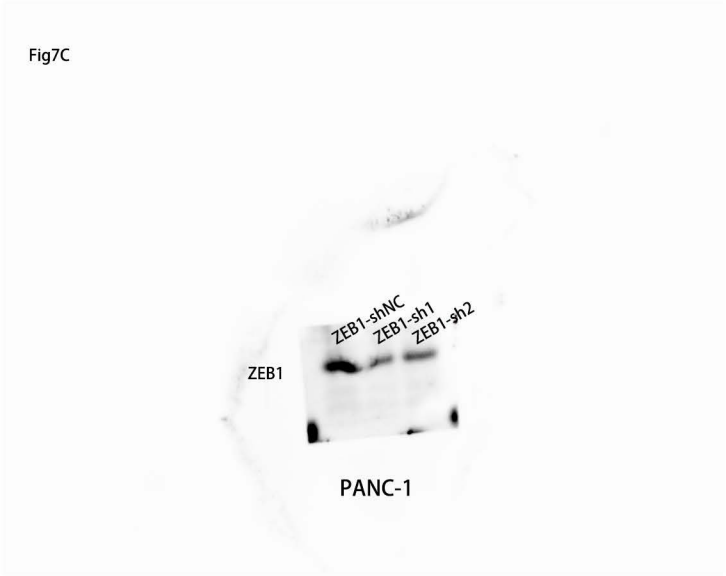

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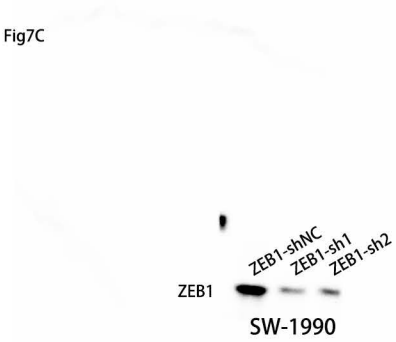

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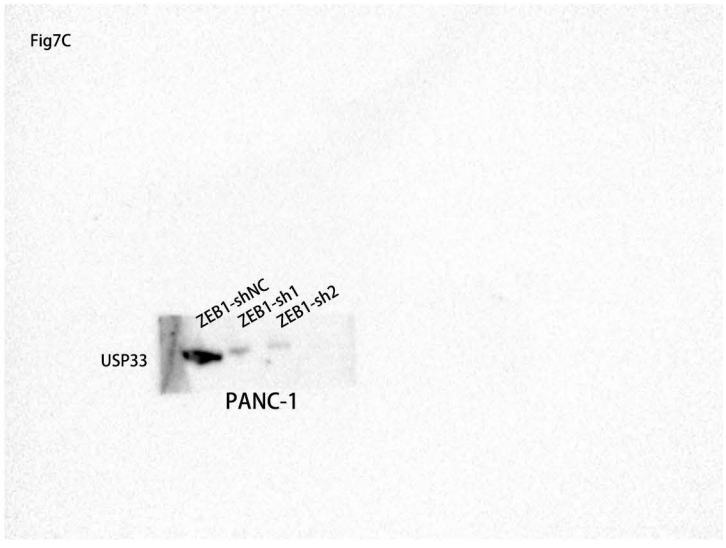

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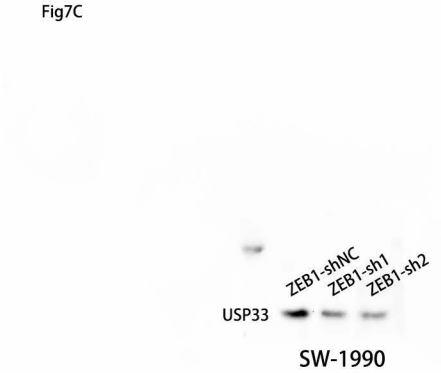

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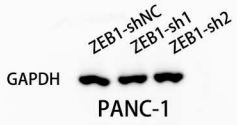
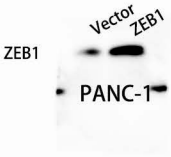


PANC-1

Fig7C

SW-1990

Fig7C



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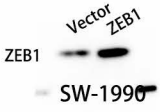
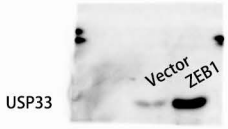


SW-1990

Fig7C

PANC-1

Fig7C



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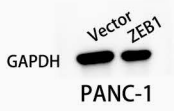

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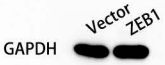

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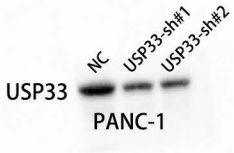
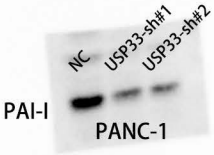


FigS1A

FigS1A



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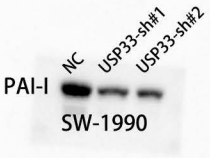

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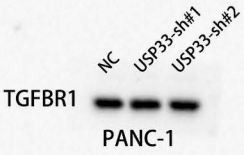

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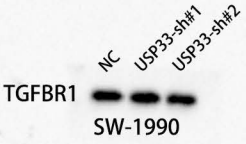

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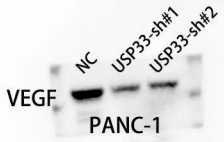

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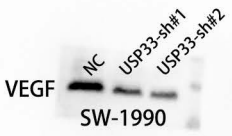

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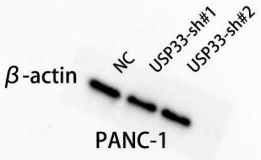

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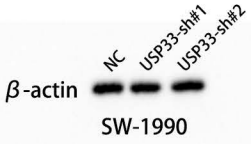

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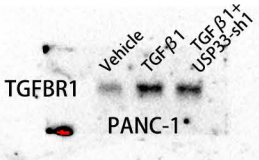

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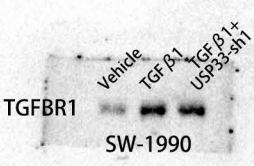

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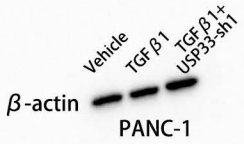

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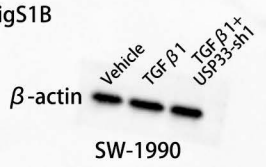

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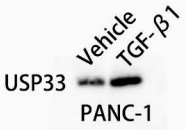
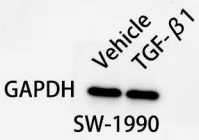


FigS3B

FigS3B

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