

# SYNZIP specification sheets

SYNZIP “spec sheets” are the full data for SYNZIP pairs that have been biophysically characterized and validated in at least one *in vivo* assay.

Alignments are taken either from the crystal structure, or are manually curated hypothetical alignments.

The interaction table entries are as follows:

Protein microarray (pa) is the *arrayscore* score generated from Reinke et al. 2010, ranging from 0 to 11, 0 being the strongest interaction. The two scores represent reciprocal measurements where each protein is printed on the surface and probed with the interacting partner and vice versa. The Y2H scores indicate colony growth on the respective selection media with “-” indicating no growth ranging to “+++” indicating maximum growth. These scores are manually curated from inspection of plate images and heatmap plots. MAPK scores are the fractional GFP intensities calculated as described in in the methods and range from 0 to 1, 0 being the strongest interaction. The two scores indicate a each zipper either fused to Ste5 or Msg5, unless noted otherwise.

Potential interactors are defined as: show interaction on protein microarray in at least one direction with an *arrayscore* score  $< 0.5$ , show an interaction in Y2H in at least one direction of the reciprocal measurements with a pixel count  $> 1000$ . Interactions that are weak in one assay (ie. protein microarray) and strong in the other (ie. Y2H), are indicated as interactors for the weaker assay.

All error bars show  $\pm 1$  standard deviation of measurement replicates.

All three versions of the pENTR vector constructs, as well as the MBP-SZ-His6x constructs are available for all SYNZIPs in the following “spec sheets”

# SYNZIP1:SYNZIP2

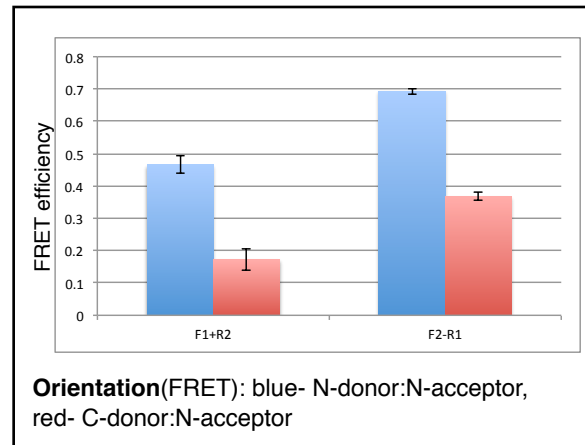
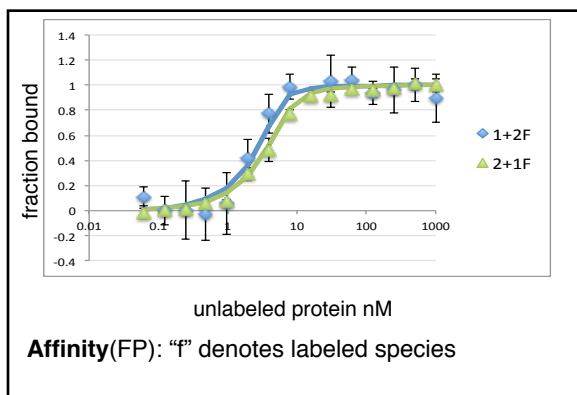
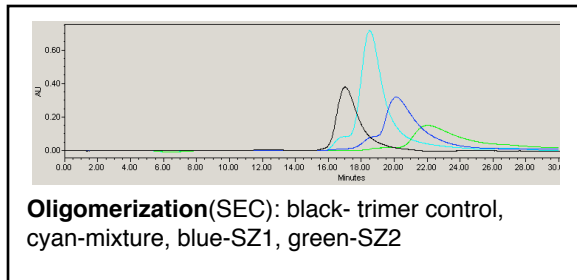
## Alignment:

```

heptad position      fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg abcdef
SZ1                  NL VAQLENE VASLENE NETLKKK NLHKKDL IAYLEKE IANLRKK IEE
SZ2                  AR NAYLRKK IARLKKD NLQLERD EQNLEKI IANLRDE IARLENE VASHEQ
-from crystal structure
  
```

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0/0.013	++	+++	0.237/0.329	dimer	parallel	< 10 nM
	slight growth variation			SZ2 monomer possibly interacts w/ column		



**Interaction partners**  
 SZ1: 7(y2h), 11(pa,y2h), 22(pa,y2h)  
 SZ2: 8(y2h), 13(pa,y2h), 14(pa,y2h), 19(pa,y2h), 20(pa,y2h)

**Additional notes**  
 structure available: 3HE5.pdb

# SYNZIP2:SYNZIP14

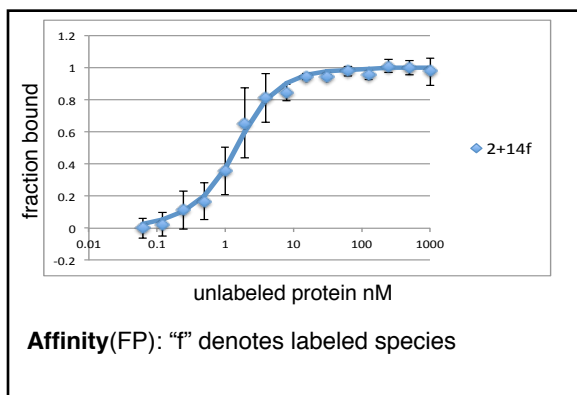
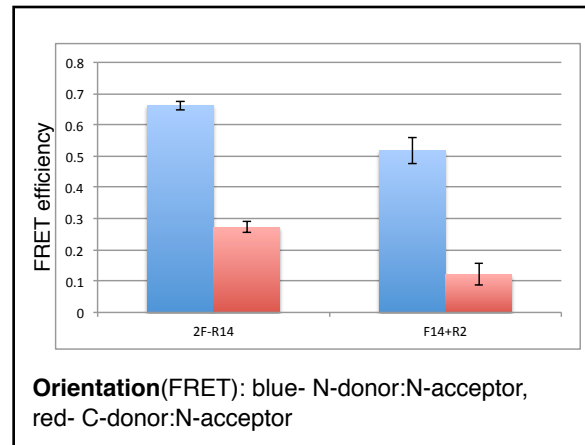
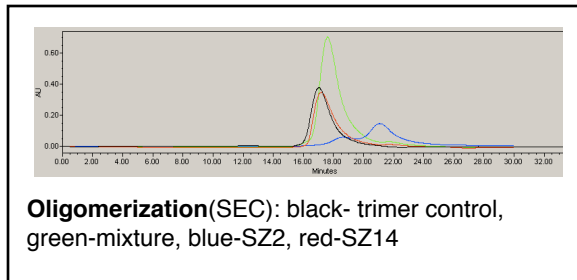
## Alignment:

```

heptad position   fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg abcdef
SZ2               AR NAYLRKK IARLKKD NLQLERD EQNLEKI IANLRDE IARLENE VASHEQ
SZ14              ND LDAYERE AEKLEKK NEVLRNR LAALENE LATLRQE VASKQOE LOS
hypothetical
  
```

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.127/0.026	+++	+++	nd	dimer	parallel	< 10 nM
	weak one direction			2 monomer potentially interact.w/ column, 14 homodimer		



**Interaction partners**  
 SZ2: 1 (pa,y2h), 8(y2h), 13(pa,y2h), 19(pa,y2h), 20(pa,y2h)  
 SZ14: 8(y2h), 12(pa,y2h), 15(pa), 17(pa), 21(pa), 22(pa,y2h)

**Additional notes**

# SYNZIP2:SYNZIP19

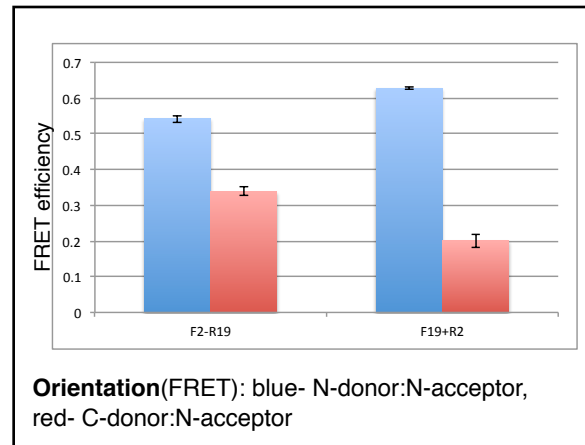
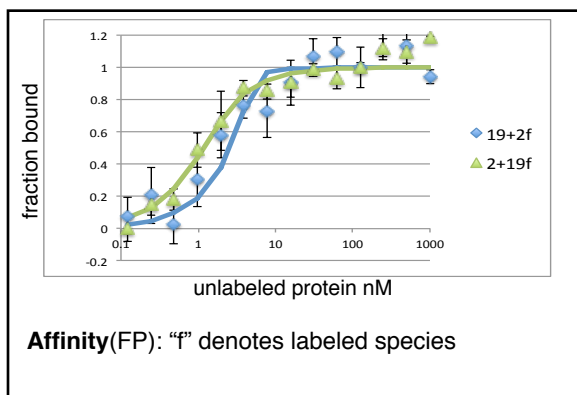
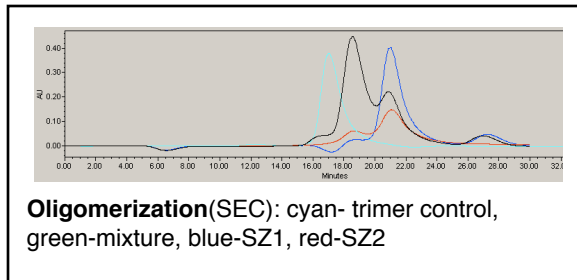
## Alignment:

```

heptad position   fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg abcdef
SZ2               AR NAYLRKK IARLKKD NLQLERD EQNLEKI IANLRDE IARLENE VASHEQ
SZ19              NE LESLENK KEELKNR NEELKQK REQLKQK LAALRNK LDAYKNR L
hypothetical
  
```

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.041/0.227	-	+++	0.340/0.468	dimer	parallel	< 10 nM
		slight growth variation		2 & 19 monomer potentially interact.w/ column		



**Interaction partners**  
 SZ2: 1(pa,y2h), 8(y2h), 13(pa,y2h), 14(pa,y2h), 20(pa,y2h)  
 SZ19: 6(pa,y2h), 11(pa,y2h), 12(pa,y2h), 16(pa,y2h), 18(pa,y2h), 21(pa,y2h), 22(pa,y2h)

**Additional notes**

# SYNZIP2:SYNZIP20

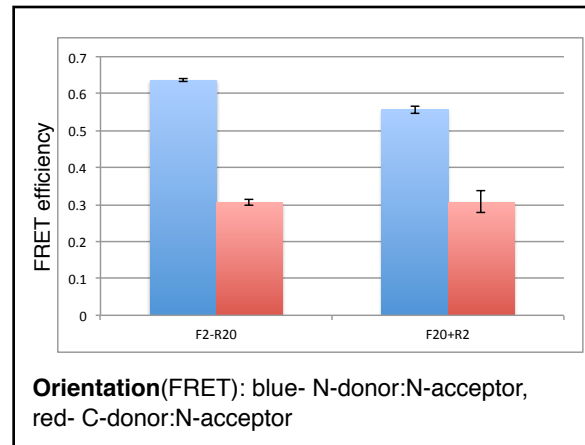
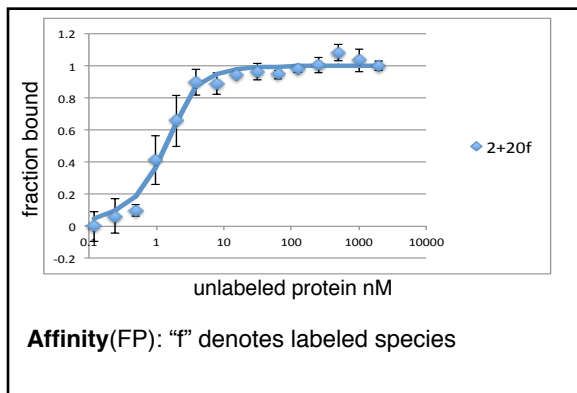
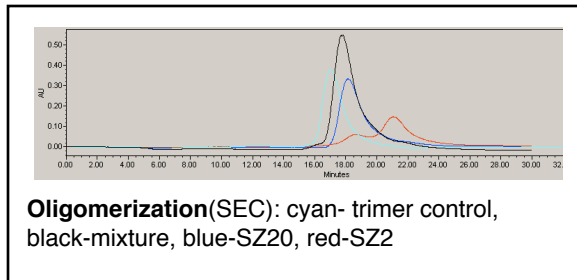
## Alignment:

```

heptad position   fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg abcdef
SZ2               AR NAYLRKK IARLKKD NLQLERD EQNLEKI IANLRDE IARLENE VASHEQ
SZ20              ST VEELLRA IQELEKR NAELKNR KEELKNL VAHLRQE LAHKYE
hypothetical
  
```

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0/0	-	+++	0.315	dimer	parallel	< 10 nM
			Ste5:SZ20- Msg5:SZ2 tested	2 monomer potentially interact.w/ column, 20 homodimer		



**Interaction partners**  
**SZ2:** 1(pa,y2h), 8(y2h), 13(pa,y2h), 14(pa,y2h), 19(pa,y2h)  
**SZ20:** 3(pa), 6(pa,y2h), 11(pa,y2h), 12(pa,y2h), 16(pa,y2h), 18(pa,y2h), 21(pa,y2h), 22(pa,y2h)

**Additional notes**









# SYNZIP5:SYNZIP16

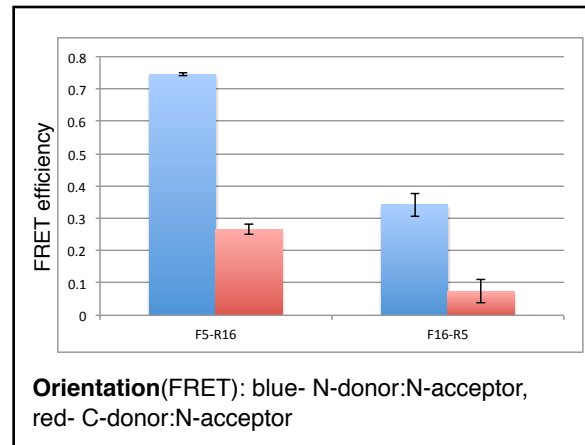
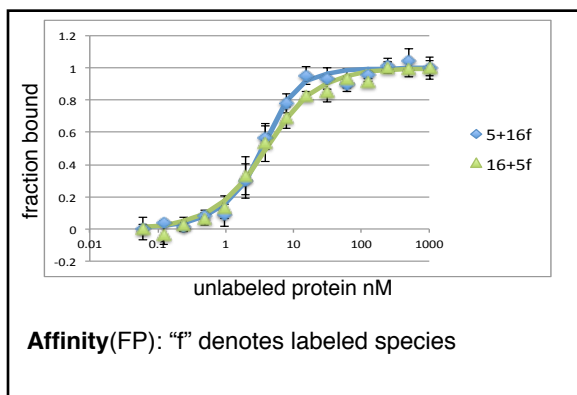
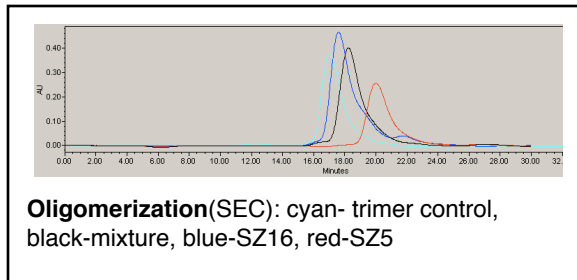
## Alignment:

```

heptad position   fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg
SZ5               NT VKELKNY IQELEER NAELKNL KEHLKFA KAELEFE LAHKFE
SZ16              NI LASLENK KEELKKL NAHLLKE IENLEKE IANLEKE IAYFK
hypothetical
  
```

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.339/0.2	+++	+++	nd	dimer	parallel	< 10 nM



**Interaction partners**  
 SZ5: 3(pa,y2h), 6(pa,y2h), 11(pa,y2h), 12(pa,y2h), 18(pa,y2h), 21(pa,y2h), 22(pa,y2h)  
 SZ16: 19(pa,y2h), 20(pa,y2h), 21(pa,y2h)

**Additional notes**

# SYNZIP5:SYNZIP21

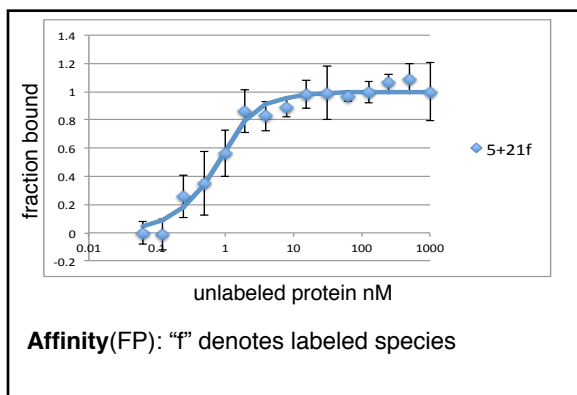
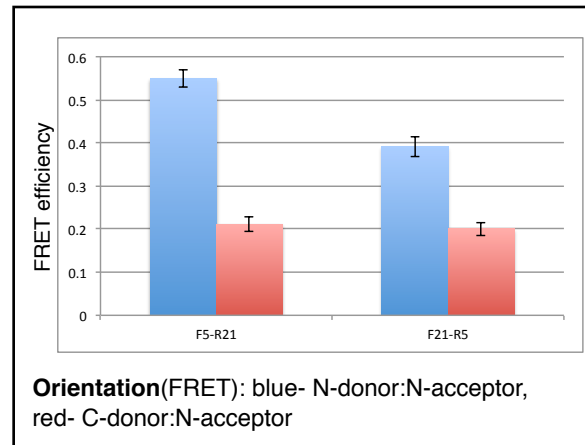
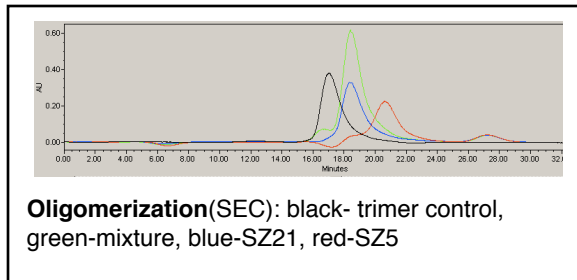
## Alignment:

```

heptad position   fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg
SZ5               NT VKELKNY IQELEER NAELKNL KEHLKFA KAELEFE LAHKFE
SZ21              NE VAQLEND VAVIENE NAYLEKE IARLRKE IAALRDR LAHKK
hypothetical
  
```

## Interaction Data

Protein microarray <i>arrayscore</i>	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.18/0.22	+++	+++	nd	dimer	parallel	< 10 nM
				21 homodimer		



**Interaction partners**  
 SZ5: 3(pa,y2h), 6(pa,y2h), 11(pa,y2h), 12(pa,y2h), 16(pa,y2h), 18(pa,y2h), 22(pa,y2h)  
 SZ21: 4(pa,y2h), 8(y2h), 10(pa,y2h), 11(pa,y2h), 12(y2h), 13(pa,y2h), 14(pa), 15(pa), 16(pa,y2h), 17(pa,y2h), 19(pa,y2h), 20(pa,y2h)

**Additional notes**

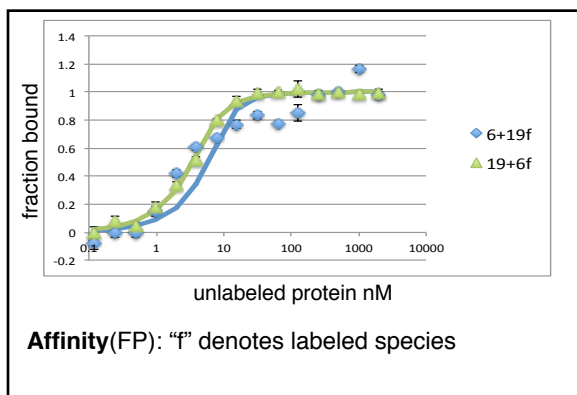
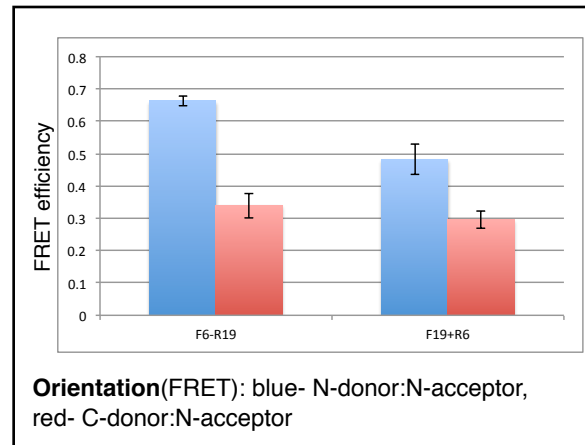
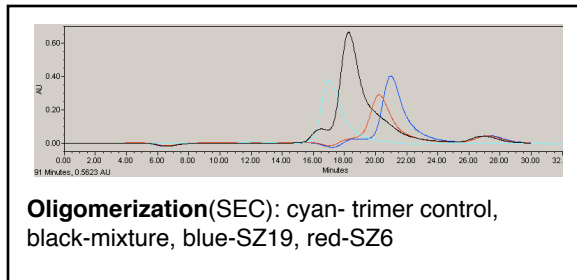
# SYNZIP6:SYNZIP19

## Alignment:

heptad position fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg a  
 SZ6 OK VAQLKNR VAYKLKE NAKLENI VARLEND NANLEKD IANLEKD IANLERD VAR  
 SZ19 NE LESLENK KEELKNR NEELKQK REQLKQK LAALRNK LDAYKNR L  
 hypothetical

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.241/0	+	+++	nd	dimer	parallel	< 10 nM
	growth variation			19 monomer potentially interact.w/ column		



**Interaction partners**  
 SZ6: 4(pa,y2h), 5(pa,y2h), 14 (y2h), 17(pa,y2h), 20(pa,y2h)  
 SZ19: 2(pa,y2h), 11 (pa,y2h), 12(pa,y2h), 16 (pa,y2h), 18(pa,y2h), 21 (pa,y2h), 22 (pa,y2h)

**Additional notes**

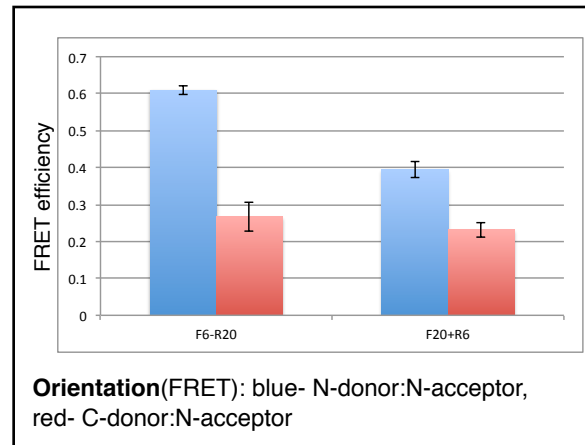
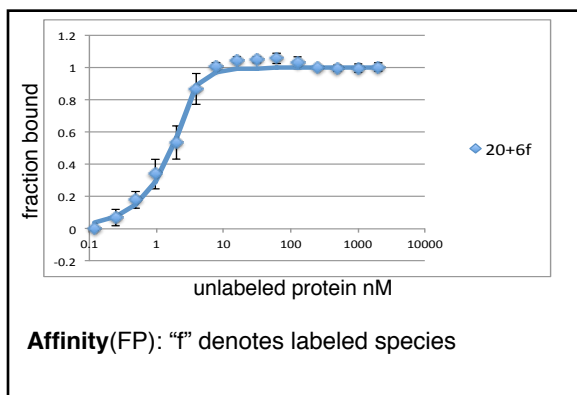
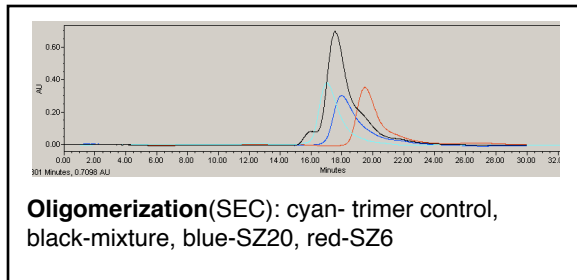
# SYNZIP6:SYNZIP20

## Alignment:

heptad position fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg  
 SZ6 QK VAQLKNR VAYKLKE NAKLENI VARLEND NANLEKD IANLEKD IANLERD VAR  
 SZ20 ST VEELLRA IQELEKR NAELKNR KEELKNL VAHLRQE LAAHKYE  
 hypothetical

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.273/0.004	++	+++	0.582/0.685	dimer	parallel	< 10 nM
	growth variation			20 homodimer, runs as large dimer		



**Interaction partners**  
 SZ6: 4(pa,y2h), 5(pa,y2h), 14 (y2h), 17(pa,y2h), 19(pa,y2h)  
 SZ20: 2(pa,y2h), 3(pa), 11 (pa,y2h), 12(pa,y2h), 16(pa,y2h), 18(pa,y2h), 21 (pa,y2h), 22(pa,y2h)

**Additional notes**

# SYNZIP6:SYNZIP21

“weak”

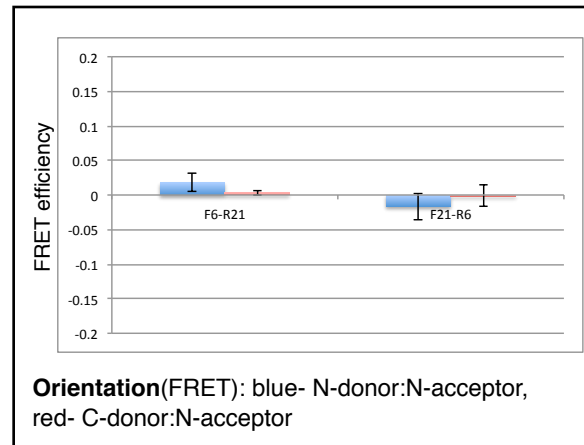
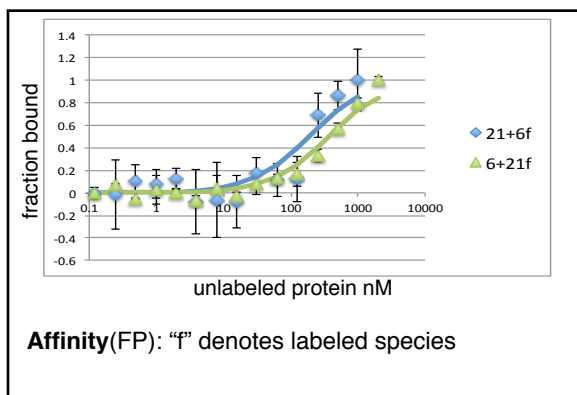
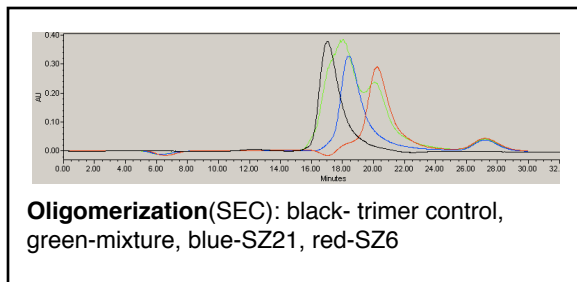
## Alignment:

```

heptad position   fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg abc
SZ6               OK VAQLKNR VAYKLE NAKLENI VARLEND NANLEKD IANLEKD IANLERD VAR
SZ21              NE VAQLEND VAVIENE NAYLEKE IARLRKE IAALRDR LAHKK
hypothetical
    
```

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
1/1	-	-	nd	multiple species	na	> 200 nM
				21 homodimer		



**Interaction partners**  
**SZ6:** 4(pa,y2h), 5(pa,y2h), 14 (y2h), 17(pa,y2h), 19(pa,y2h), 20(pa,y2h)  
**SZ21:** 4(pa,y2h), 5(pa,y2h), 8(y2h), 10(pa,y2h), 11 (pa,y2h), 12(y2h), 13(pa,y2h), 14(pa), 15(pa), 16(pa,y2h), 17(pa,y2h), 19(pa,y2h), 20(pa,y2h)

## Additional notes

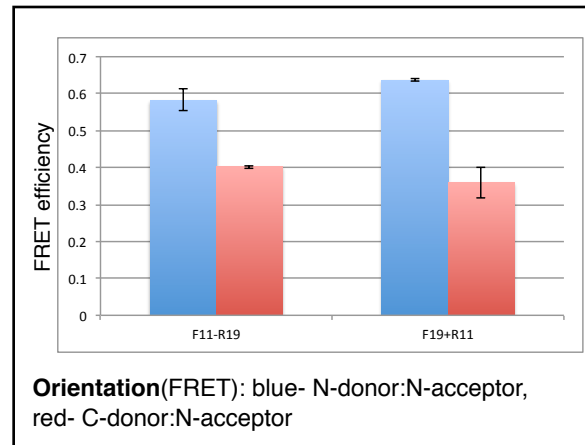
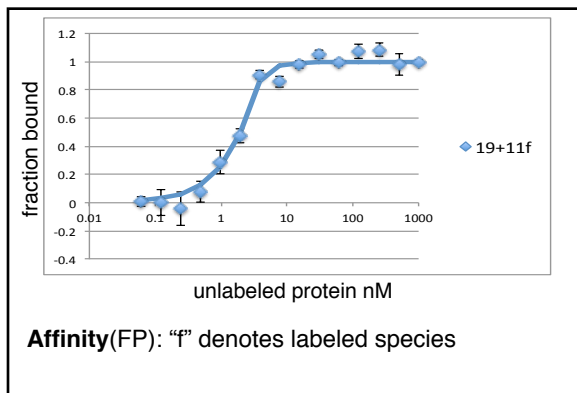
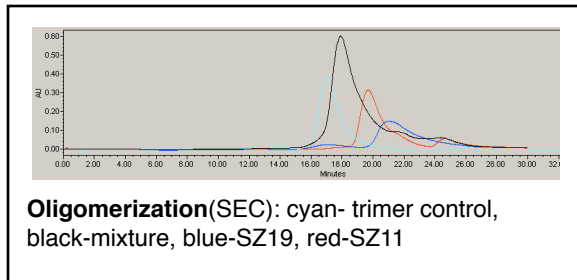
# SYNZIP11:SYNZIP19

## Alignment:

heptad position fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg a  
 SZ11 EL TDELKKN KEALRKD NAALLNE LASLENE IANLEKE IAYFK  
 SZ19 NE LESLENK KEELKNR NEELKQK REQLKQK LAALRNK LDAYKNR L  
 hypothetical

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.462/0.289	-	+++	nd	dimer	parallel	< 10 nM
	11 autoactivation	11 autoactivation		19 monomer potentially interact.w/ column		



**Interaction partners**  
 SZ11: 1(pa,y2h), 5(pa,y2h), 17(pa,y2h), 19(pa,y2h), 21(pa,y2h)  
 SZ19: 2(pa,y2h), 6(pa,y2h), 12(pa,y2h), 16(pa,y2h), 18(pa,y2h), 21(pa,y2h), 22(pa,y2h)

**Additional notes**

# SYNZIP11:SYNZIP20

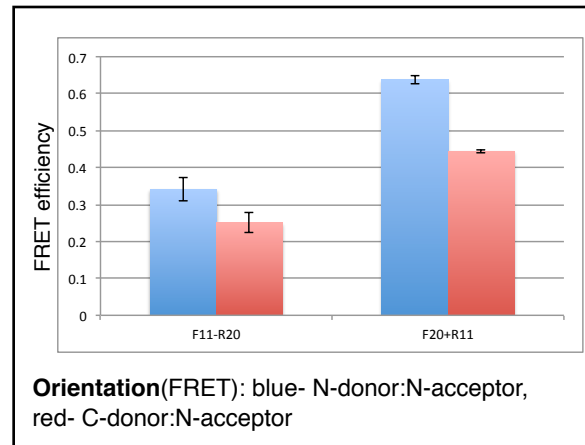
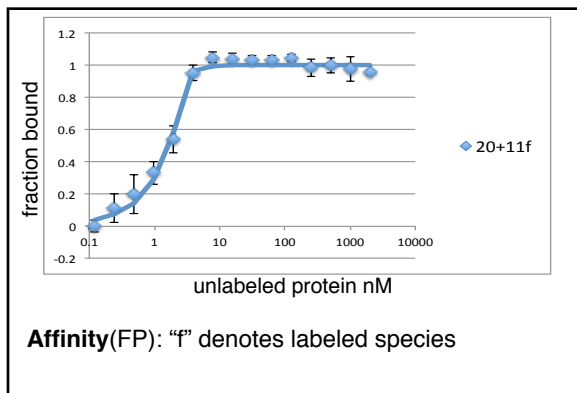
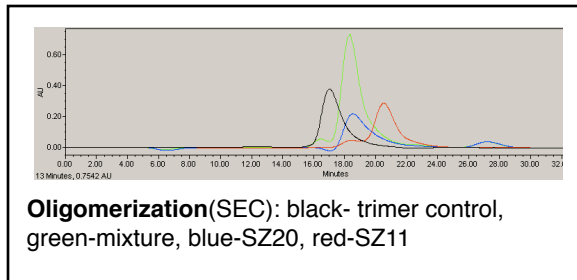
## Alignment:

```

heptad position   fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg
SZ11              EL TDELKKN KEALRKD NAALLNE LASLENE IANLEKE IAYFK
SZ20              ST VEELLRA IQELEKR NAELKNR KEELKNL VAHLRQE LAAHKYE
hypothetical
    
```

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0/0.062	+++	+++	nd	dimer	parallel	< 10 nM
	11 autoacti vation	11 autoactiv ation		20 homodimer		



**Interaction partners**  
**SZ11:** 1(pa,y2h), 5(pa,y2h), 17(pa,y2h), 19(pa,y2h), 21(pa,y2h)  
**SZ20:** 2(pa,y2h), 3(pa), 6(pa,y2h), 12(pa,y2h), 16(pa,y2h), 18(pa,y2h), 21(pa,y2h), 22(pa,y2h)

**Additional notes**

# SYNZIP11:SYNZIP21

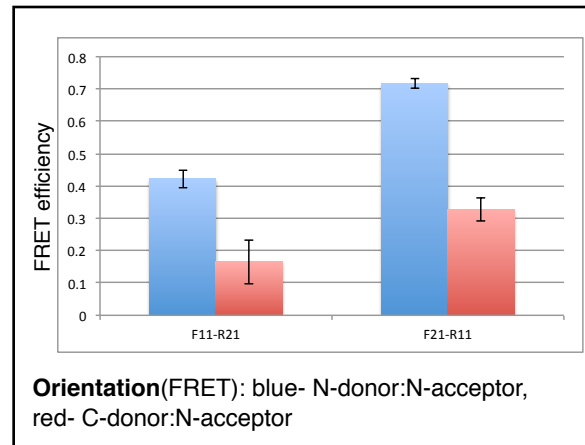
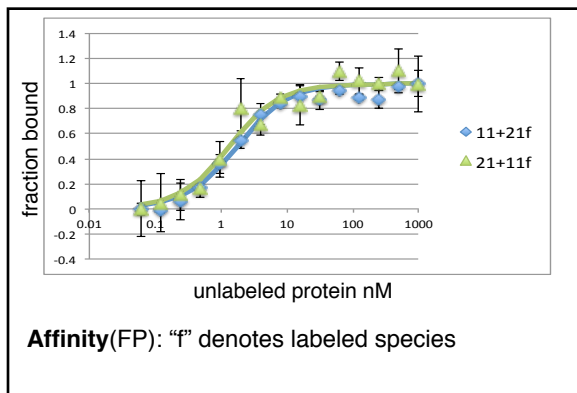
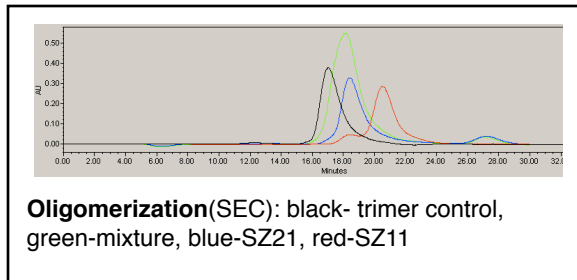
## Alignment:

```

heptad position   fg abcdefg abcdefg abcdefg abcdefg abcdefg abcde
SZ11              EL TDELKKN KEALRKD NAALLNE LASLENE IANLEKE IAYFK
SZ21              NE VAQLEND VAVIENE NAYLEKE IARLRKE IAALRDR LAHKK
hypothetical
    
```

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.343/0.233	+	+++	nd	dimer	parallel	< 10 nM
	11 autoacti vation	11 autoactiv ation		21 homodimer, runs as large dimer		



**Interaction partners**  
 SZ11: 1(pa,y2h), 5(pa,y2h), 17(pa,y2h), 19(pa,y2h), 20(pa,y2h)  
 SZ21: 4(pa,y2h), 5(pa,y2h), 8(y2h), 10(pa,y2h), 12(y2h), 13(pa,y2h), 14(pa), 15(pa), 16(pa,y2h), 17(pa,y2h), 19(pa,y2h), 20(pa,y2h)

**Additional notes**



# SYNZIP14:SYNZIP17

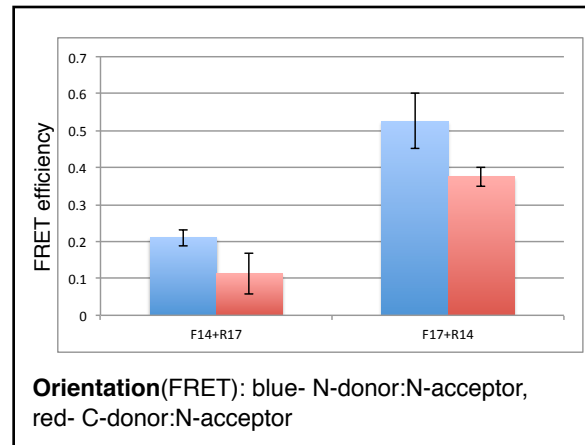
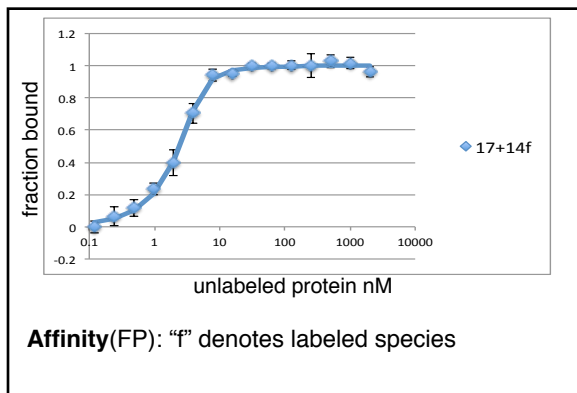
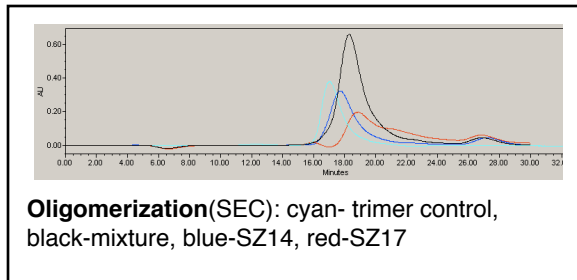
## Alignment:

```

heptad position   fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg abc
SZ14              ND LDAYERE AEKLEKK NEVLRNR LAALENE LATLRQE VASKMQE LQS
SZ17              NE KEELKSK KAELRNR IEQLKQK REQLKQK IANLRKE IEAYK
hypothetical
  
```

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.625/0.241	-	-	nd	dimer	parallel	< 10 nM
				14 homodimer, 17 interacts with column		



**Interaction partners**  
 SZ14: 2(pa,y2h), 8(y2h), 12(pa,y2h), 15(pa), 21(pa), 22(pa,y2h)  
 SZ17: 3(pa,y2h), 6(pa,y2h), 11(pa,y2h), 12(pa,y2h), 15(pa), 18(pa,y2h), 21(pa,y2h), 22(pa,y2h)

**Additional notes**

# SYNZIP14:SYNZIP21

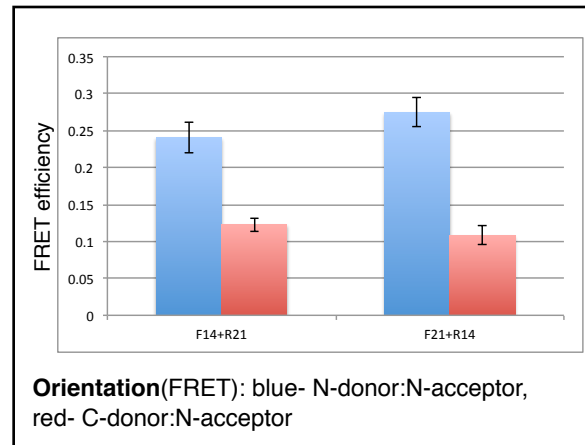
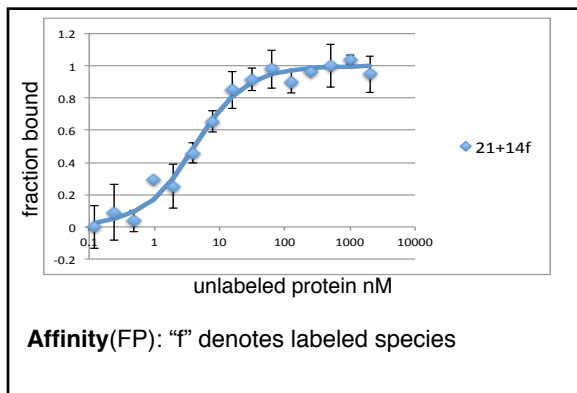
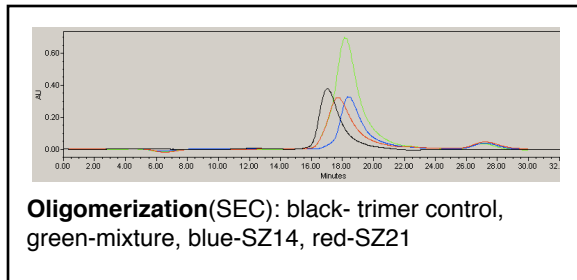
## Alignment:

```

heptad position   fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg abc
SZ14              ND LDAYERE AEKLEKK NEVLRNR LAALENE LATLRQE VASKQOE LQS
SZ21              NE VAQLEND VAVIENE NAYLEKE IARLRKE IAALRDR LAHKK
hypothetical
  
```

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.515/0.358	-	+	nd	dimer	parallel	< 10 nM
		only one direction		14 & 21 homodimers		



**Interaction partners**  
**SZ14:** 2 (pa,y2h), 8(y2h), 12(pa,y2h), 15(pa), 17 (pa), 22(pa,y2h)  
**SZ21:** 4(pa,y2h), 5(pa,y2h), 8(y2h), 10(pa,y2h), 11 (pa,y2h), 12(y2h), 13(pa,y2h), 15(pa), 16 (pa,y2h), 17(pa,y2h), 19(pa,y2h), 20(pa,y2h)

**Additional notes**

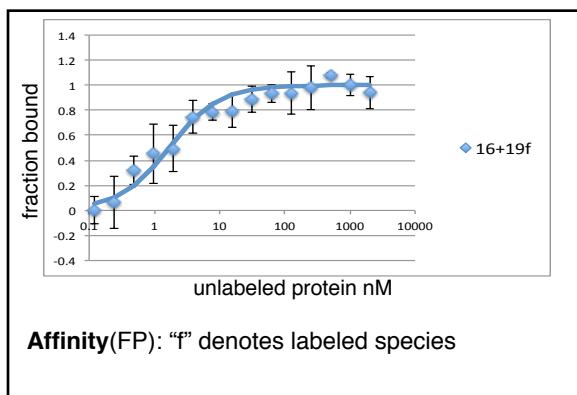
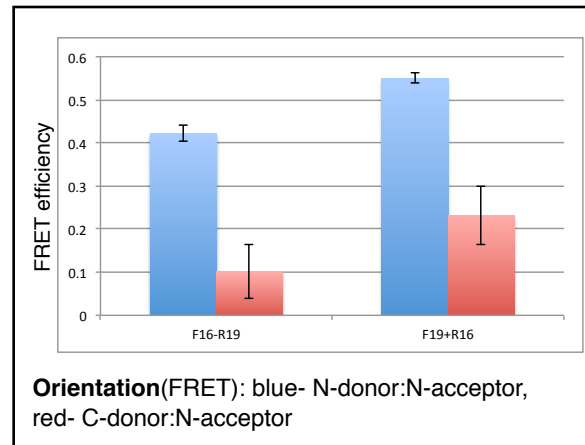
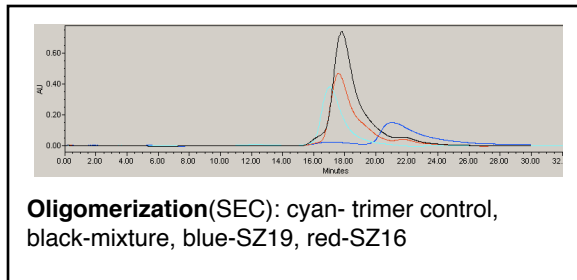
# SYNZIP16:SYNZIP19

## Alignment:

heptad position fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg a  
 SZ16 NI LASLENK KEELKKL NAHLLKE IENLEKE IANLEKE IAYFK  
 SZ19 NE LESLENK KEELKNR NEELKQK REQLKQK LAALRNK LDAYKNR L  
 hypothetical

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.129/0.487	-	+++	nd	dimer	parallel	< 10 nM
		weak one direction		19 monomer potentially interact.w/ column, 16 homodimer		



**Interaction partners**  
 SZ16: 5(pa,y2h), 20(pa,y2h), 21(pa,y2h)  
 SZ19: 2(pa,y2h), 6(pa,y2h), 11(pa,y2h), 12(pa,y2h), 18(pa,y2h), 21(pa,y2h), 22(pa,y2h)

**Additional notes**

# SYNZIP16:SYNZIP20

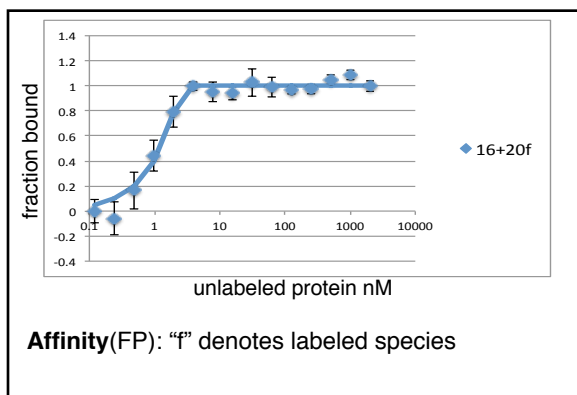
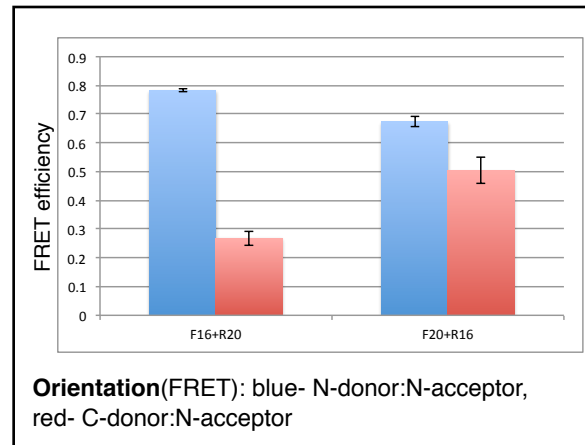
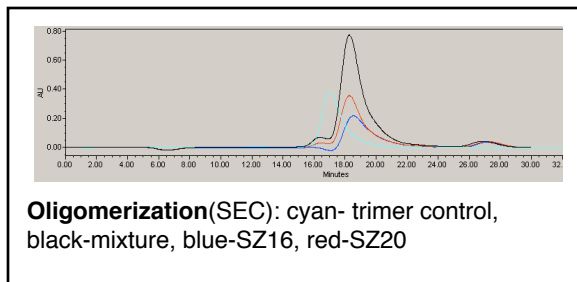
## Alignment:

```

heptad position   fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg
SZ16              NI LASLENK KEELKKL NAHLLKE IENLEKE IANLEKE IAYFK
SZ20              ST VEELLRA IQELEKR NAELKNR KEELKNL VAHLRQE LAHKYE
hypothetical
  
```

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.12/0.047	+++	+++	nd	dimer	parallel	< 10 nM
				16 & 20 homodimers		



**Interaction partners**  
 SZ16: 5(pa,y2h), 19(pa,y2h), 21(pa,y2h)  
 SZ20: 2(pa,y2h), 3(pa), 6(pa,y2h), 11(pa,y2h), 12(pa,y2h), 18(pa,y2h), 21(pa,y2h), 22(pa,y2h)

**Additional notes**

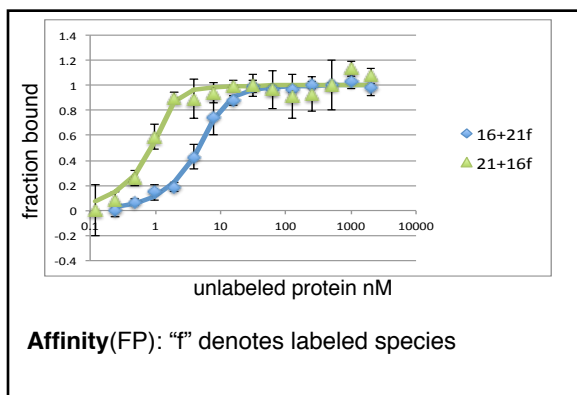
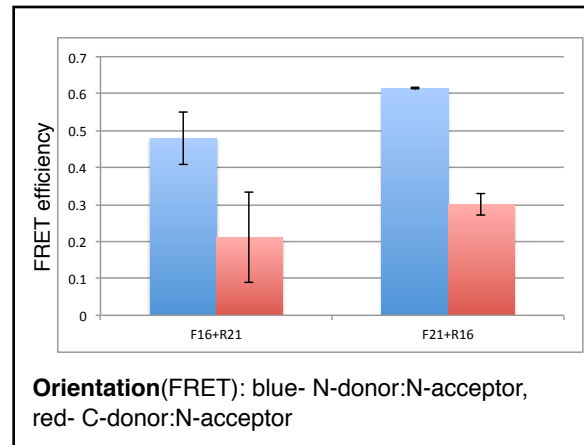
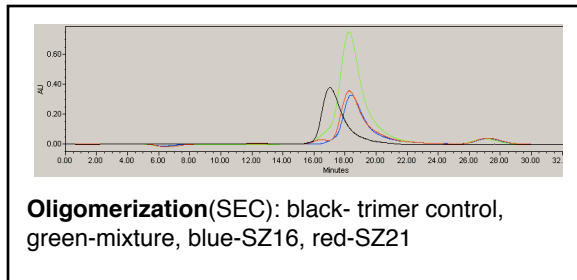
# SYNZIP16:SYNZIP21

## Alignment:

heptad position      fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg  
 SZ16                    NI LASLENK KEELKKL NAHLLKE IENLEKE IANLEKE IAYFK  
 SZ21                    NE VAQLEND VAVIENE NAYLEKE IARLRKE IAALDR LAHKK  
 hypothetical

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.394/0.341	+++	+++	nd	dimer	parallel	< 10 nM
	no growth 1 direction			16 & 21 homodimers		



**Interaction partners**  
 SZ16: 5(pa,y2h), 19(pa,y2h), 20(pa,y2h)  
 SZ21: 4(pa,y2h), 5(pa,y2h), 8(y2h), 10(pa,y2h), 11(pa,y2h), 12(y2h), 13(pa,y2h), 14(pa), 15(pa), 17(pa,y2h), 19(pa,y2h), 20(pa,y2h)

**Additional notes**

# SYNZIP17:SYNZIP18

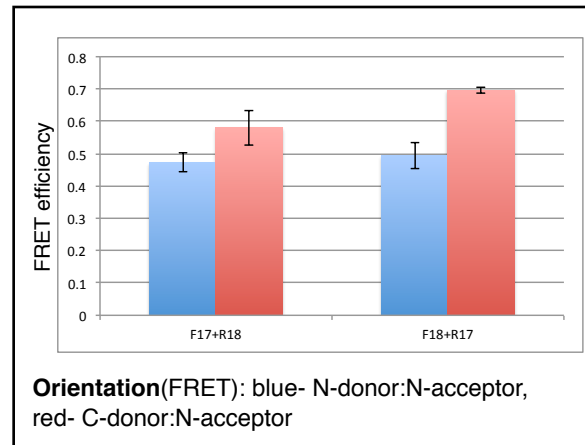
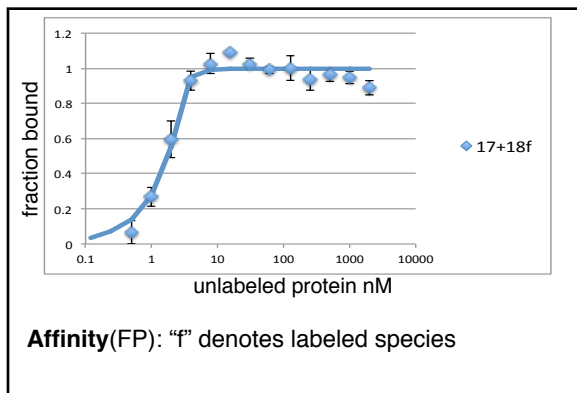
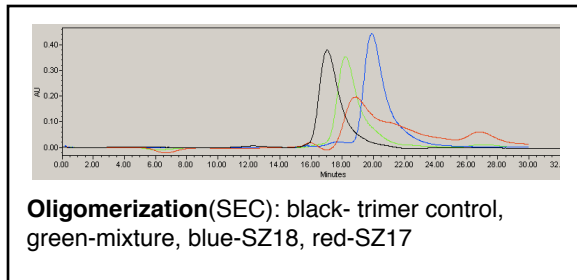
## Alignment:

```

heptad position   fgabcdefgabcdefgabcdefgabcdefgabcdefgabcde
SZ17              NEKEELKSKKAELRNRIEQLKQKREQLKQKIANLRKEIEAYK
SZ18reverse      FYAEERELKALDRELNAIDKELRANENELRALDNELTAAIS
heptad position   dcbagfedcbagfedcbagfedcbagfedcbagfedcbagf
hypothetical
    
```

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.035/0.19	+++	+++	nd	dimer	antiparallel	< 10 nM
	18 autoactivation	18 autoactivation		17 interacts with column		



**Interaction partners**  
 SZ17: 3(pa,y2h), 6(pa,y2h), 11(pa,y2h), 12(pa,y2h), 14(pa,y2h), 15(pa), 21(pa,y2h), 22(pa,y2h)  
 SZ18: 4(pa,y2h), 5(pa,y2h), 13(pa,y2h), 19(pa,y2h), 20(pa,y2h)

**Additional notes**  
 secondary alignment

```

                fgabcdefgabcdefgabcdefgabcdefgabcdefgabcde
SZ17            NEKEELKSKKAELRNRIEQLKQKREQLKQKIANLRKEIEAYK
SZ18  FYAEERELKALDRELNAIDKELRANENELRALDNELTAAIS
                dcbagfedcbagfedcbagfedcbagfedcbagfedcbagf
    
```

# SYNZIP17:SYNZIP21

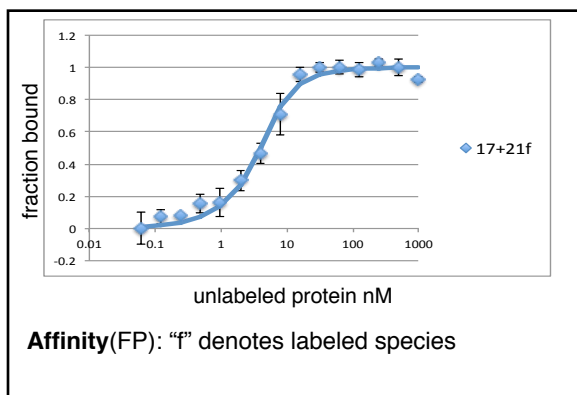
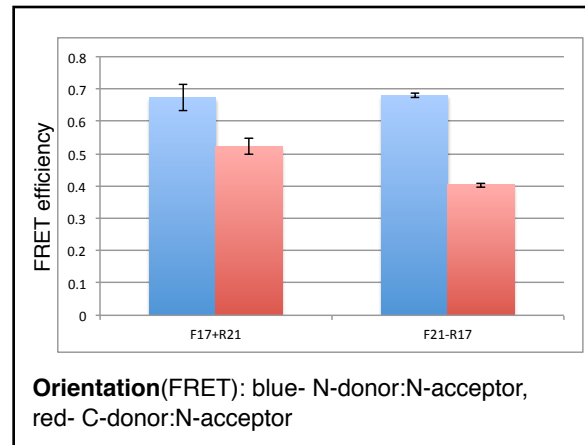
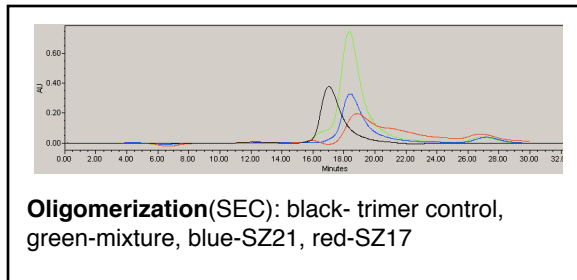
## Alignment:

```

heptad position   fg abcdefg abcdefg abcdefg abcdefg abcdefg abcde
SZ17              NE KEELKSK KAELRNR IEQLKQK REQLKQK IANLRKE IEAYK
SZ21              NE VAQLEND VAVIENE NAYLEKE IARLRKE IAALDR LAHKK
hypothetical
    
```

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.244/0.188	+++	+++	nd	dimer	parallel	< 10 nM
	weak 1 direction			21 homodimer, 17 interacts with column		



**Interaction partners**  
 SZ17: 3(pa,y2h), 6(pa,y2h), 11(pa,y2h), 12(pa,y2h), 14(pa,y2h), 15(pa), 18(pa,y2h), 22(pa,y2h)  
 SZ21: 4(pa,y2h), 5(pa,y2h), 8(y2h), 10(pa,y2h), 11(pa,y2h), 12(y2h), 13(pa,y2h), 14(pa), 15(pa), 16(pa,y2h), 19(pa,y2h), 20(pa,y2h)

**Additional notes**

# SYNZIP18:SYNZIP19

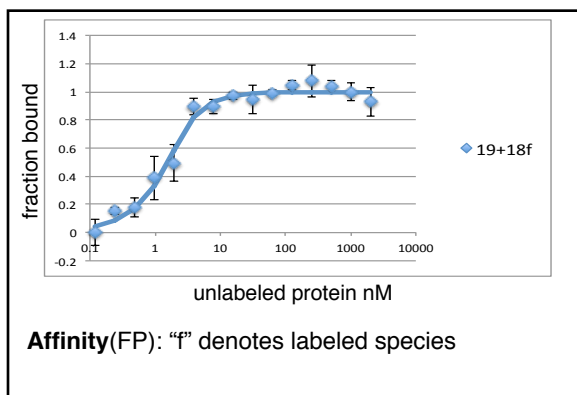
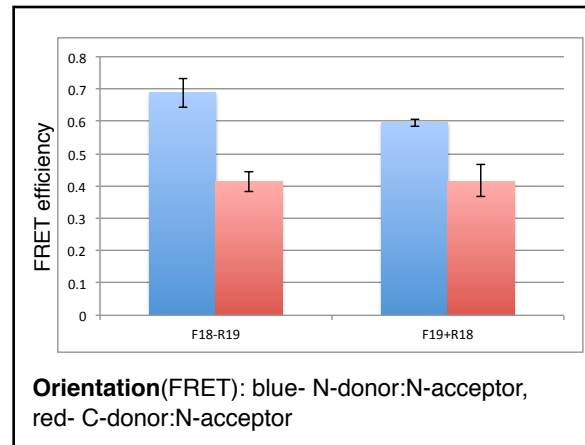
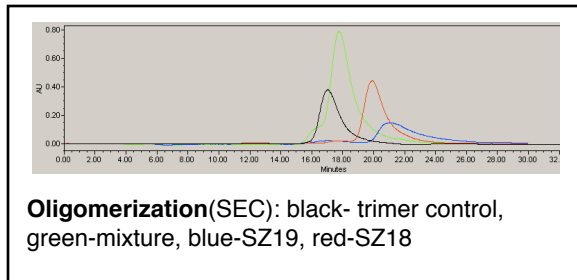
## Alignment:

```

heptad position   fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg a
SZ18              SI AATLEND LARLENE NARLEKD IANLERD LAKLERE EAYF
SZ19              NE LESLENK KEELKNR NEELKQK REQLKQK LAALRNK LDAYKNR L
hypothetical
  
```

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0/0.107	+++	+++	0.376/0.263	dimer	parallel	< 10 nM
	18 autoacti vation	18 autoactiv ation		19 monomer potentially interact.w/ column		



**Interaction partners**  
 SZ18: 4(pa,y2h), 5(pa,y2h), 13(pa,y2h), 17(pa,y2h), 20(pa,y2h)  
 SZ19: 2(pa,y2h), 6(pa,y2h), 11(pa,y2h), 12(pa,y2h), 16(pa,y2h), 21(pa,y2h), 22(pa,y2h)

**Additional notes**



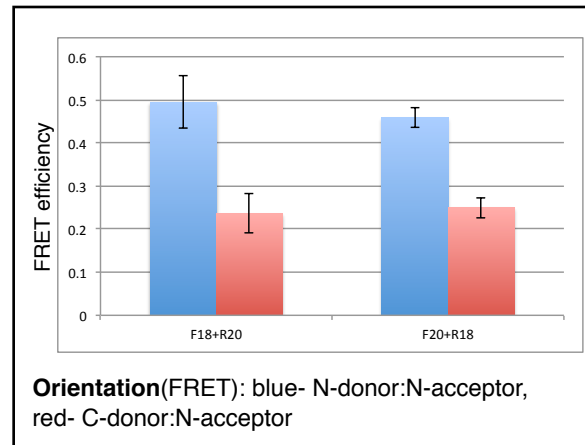
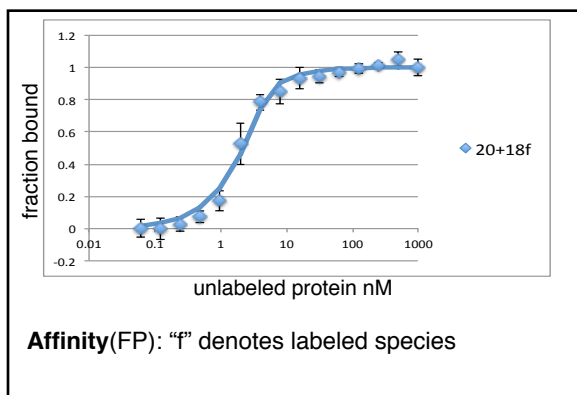
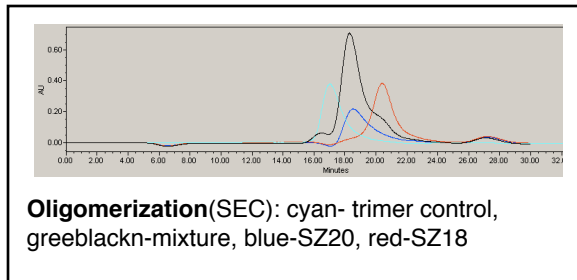
# SYNZIP18:SYNZIP20

## Alignment:

heptad position fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg  
 SZ18 SI AATLEND LARLENE NARLEKD IANLERD LAKLERE EAYF  
 SZ20 ST VEELLRA IQELEKR NAELKNR KEELKNL VAHLRQE LAAHKYE  
 hypothetical

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.016/0.288	+++	+++	nd	dimer	parallel	< 15 nM
	18 autoacti vation	18 autoactiv ation		20 homodimer		



**Interaction partners**  
 SZ18: 4(pa,y2h), 5(pa,y2h), 13(pa,y2h), 17(pa,y2h), 19(pa,y2h)  
 SZ20: 2(pa,y2h), 3(pa), 6(pa,y2h), 11(pa,y2h), 12(pa,y2h), 16(pa,y2h), 21(pa,y2h), 22(pa,y2h)

**Additional notes**

# SYNZIP18: SYNZIP 21

“weak”

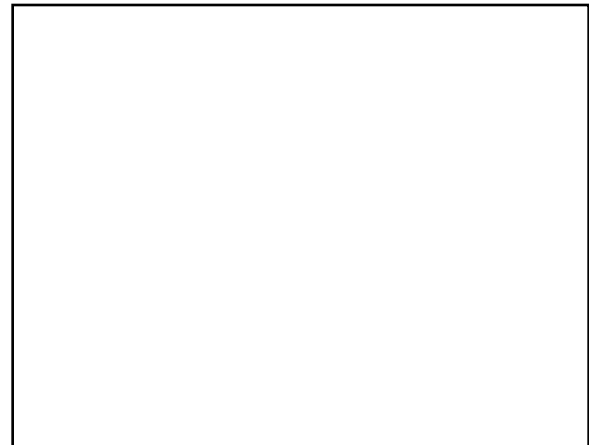
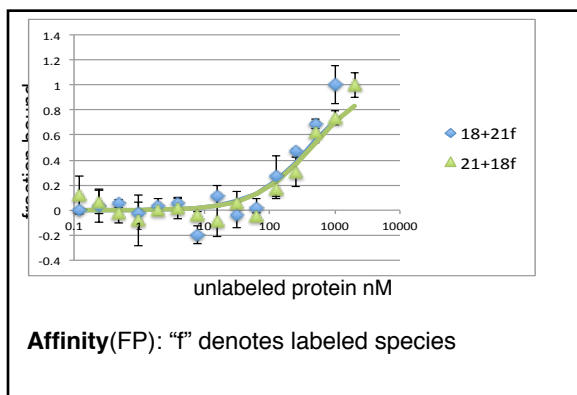
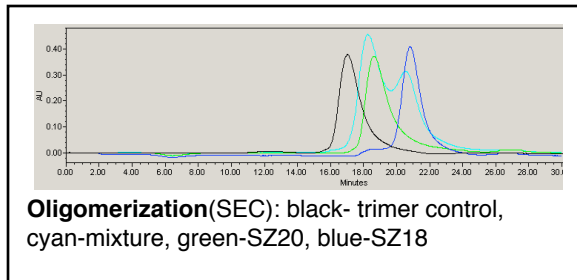
## Alignment:

```

heptad position      fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg
SZ18                 SI AATLEND LARLENE NARLEKD IANLERD LAKLERE EAYF
SZ21                 NE VAQLEND VAVIENE NAYLEKE IARLRKE IAALRDR LAHKK
hypothetical
    
```

## Interaction Data

Protein microarray <i>arrayscore</i>	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
1.126/1.348	-	-	nd	no interaction	nd	>400 nM
	18 autoacti vation	18 autoactiv ation		20 homodimer		



**Interaction partners**  
**SZ18:** 4(pa,y2h), 5(pa,y2h), 13(pa,y2h), 17(pa,y2h), 19(pa,y2h)  
**SZ21:** 4(pa,y2h), 5(pa,y2h), 8(y2h), 10(pa,y2h), 11(pa,y2h), 12(y2h), 13(pa,y2h), 14(pa), 15(pa), 16(pa,y2h), 17(pa,y2h), 19(pa,y2h)

**Additional notes**

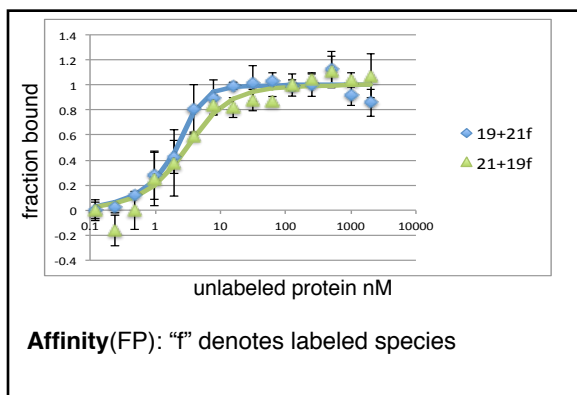
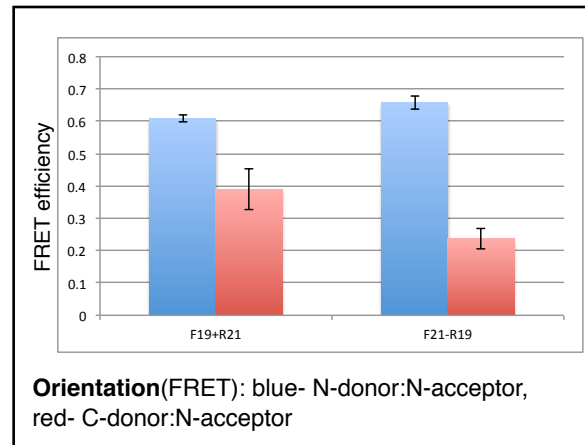
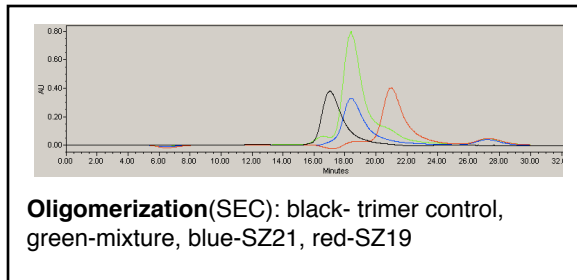
# SYNZIP19:SYNZIP21

## Alignment:

heptad position      fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg a  
 SZ19                    NE LESLENK KEELKNR NEELKQK REQLKQK LAALRNK LDAYKNR L  
 SZ21                    NE VAQLEND VAVIENE NAYLEKE IARLRKE IAALRDR LAHKK  
 hypothetical

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.089/0	+++	+++	0.357/0.293	dimer	parallel	< 10 nM
				19 monomer potentially interact.w/ column, 21 homodimer		



**Interaction partners**  
 SZ19: 2(pa,y2h), 6(pa,y2h), 11(pa,y2h), 12(pa,y2h), 16(pa,y2h), 18(pa,y2h), 22(pa,y2h)  
 SZ21: 4(pa,y2h), 5(pa,y2h), 8(y2h), 10(pa,y2h), 11(pa,y2h), 12(y2h), 13(pa,y2h), 14(pa), 15(pa), 16(pa,y2h), 17(pa,y2h), 20(pa,y2h)

**Additional notes**

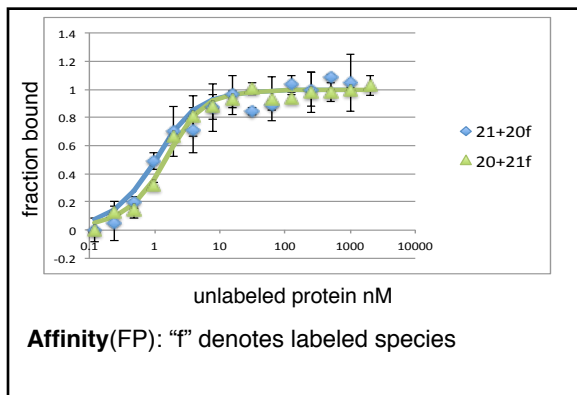
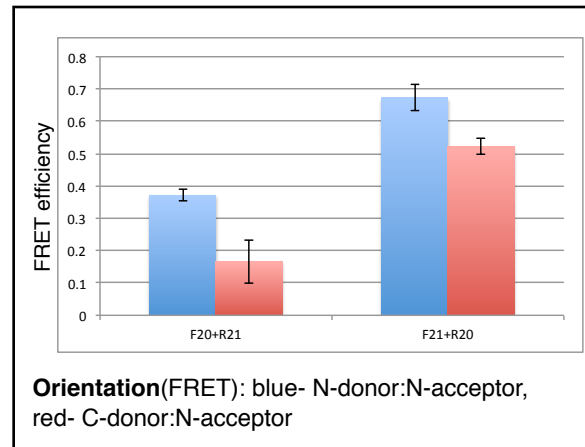
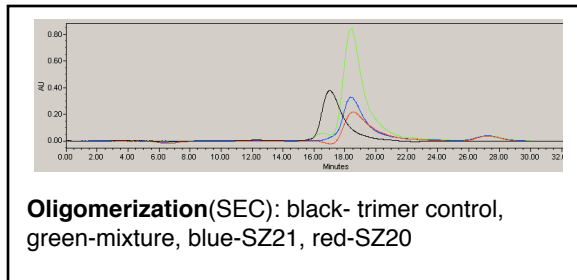
# SYNZIP20:SYNZIP21

## Alignment:

heptad position      fg abcdefg abcdefg abcdefg abcdefg abcdefg abcdefg abcdef  
 SZ20                    ST VEELLRA IQELEKR NAELKNR KEELKNL VAHLRQE LAAHKYE  
 SZ21                    NE VAQLEND VAVIENE NAYLEKE IARLRKE IAALRDR LAHKK  
 hypothetical

## Interaction Data

Protein microarray arrayscore	Y2H -Ura	Y2H -His	MAPK (fractional GFP intensity)	SEC	FRET	FP (K <sub>d</sub> )
0.227/0.173	+++	+++	nd	dimer	parallel	< 10 nM
	slight growth variation			20 & 21 homodimers		



**Interaction partners**  
 SZ20: 2(pa,y2h), 3(pa), 6(pa,y2h), 11(pa,y2h), 12(pa,y2h), 16(pa,y2h), 18(pa,y2h), 22(pa,y2h)  
 SZ21: 4(pa,y2h), 5(pa,y2h), 8(y2h), 10(pa,y2h), 11(pa,y2h), 12(y2h), 13(pa,y2h), 14(pa), 15(pa), 16(pa,y2h), 17(pa,y2h), 19(pa,y2h)

**Additional notes**