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## Supplemental Data

### Understanding the Words of Chromatin Regulation

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Table S1. Evolutionary conservation of SWI/SNF-like chromatin remodeling complexes from yeast, *Drosophila* and mammals

Yeast				<i>Drosophila</i>		Human	
SWI/SNF	RSC	Ino80	Swr1	BAP	PBAP	BAF	PBAF
<a href="#">Swi1</a>				<a href="#">Eld/Osa</a>		<a href="#">BAF250a, b</a>	
<a href="#">Swi2/Snf2</a>	<a href="#">Sth1</a>	<a href="#">Ino80</a>	<a href="#">Swr1</a>	<a href="#">Brahma</a>	<a href="#">Brahma</a>	<a href="#">Brg, Brm</a>	<a href="#">Brg</a>
	<a href="#">Rsc1, 2, 4</a>				<a href="#">Polybromo</a>		<a href="#">BAF180</a>
	<a href="#">Rsc9</a>				<a href="#">BAP170</a>		<a href="#">BAF200/ARID2</a>
<a href="#">Swi3</a>	<a href="#">Rsc8</a>		<a href="#">Swc4</a>	<a href="#">BAP155/Moira</a>	<a href="#">BAP155/Moira</a>	<a href="#">BAF155, 170</a>	<a href="#">BAF155, 170</a>
		<a href="#">Nhp10</a>		<a href="#">BAP111</a>	<a href="#">BAP111</a>	<a href="#">BAF57</a>	<a href="#">BAF57</a>
<a href="#">Swp73</a>	<a href="#">Rsc6</a>			<a href="#">BAP60</a>	<a href="#">BAP60</a>	<a href="#">BAF60a, b, c</a>	<a href="#">BAF60a, b, c</a>
<a href="#">Arp7</a>	<a href="#">Arp7</a>	<a href="#">Arp5, 8</a>	<a href="#">Arp6</a>	<a href="#">BAP55</a>	<a href="#">BAP55</a>	<a href="#">BAF53a, b</a>	<a href="#">BAF53a, b</a>
<a href="#">Arp9</a>	<a href="#">Arp9</a>	<a href="#">Arp4</a>	<a href="#">Arp4</a>				
		<a href="#">Act1</a>	<a href="#">Act1</a>	<a href="#">BAP47/Actin</a>	<a href="#">BAP47/Actin</a>	<a href="#">β-actin</a>	<a href="#">β-actin</a>
<a href="#">Snf5</a>	<a href="#">Sfh1</a>			<a href="#">Snr1</a>	<a href="#">Snr1</a>	<a href="#">BAF47/SNF5/Ini</a>	<a href="#">BAF47/SNF5/Ini</a>
					<a href="#">SAYP</a>	<a href="#">BAF45a, b, c, d</a>	
	<a href="#">Rsc5, 10, 13, 14, 15</a>						
	<a href="#">Rsc3, 30, 58</a>						
<a href="#">Swp82</a>	<a href="#">Rsc7</a>						
<a href="#">Swp29</a>		<a href="#">Swp29</a>					
<a href="#">Snf6, 11</a>							
		<a href="#">Rvb1, 2</a>	<a href="#">Rvb1, 2</a>				
		<a href="#">Ies1, 3, 4</a>					
			<a href="#">Swc3, 5, 7</a>				
			<a href="#">Vps71, 72</a>				
			<a href="#">Yaf9</a>				

The yeast Swi2/Snf2 ATPase and other subunits of the prototypical SWI/SNF chromatin-remodeling complex were identified in genetic screens of yeast deficient in mating type switching (SWItching mutants) and in sucrose fermentation (Sucrose NonFermenters, SNF mutants). RSC (for Remodel the Structure of Chromatin), a related yeast chromatin remodeling complex was identified by Cairns et al. (1996). Ino80 and Swr1 complexes are yeast SWI/SNF-related, ATP-dependent chromatin remodeling complexes that also share significant similarities with SWI/SNF complexes in higher organisms (Krogan et al., 2003; Mizuguchi et al., 2004; Shen et al., 2000). Interestingly, *Drosophila* and vertebrates have to some degree shuffled the subunits of yeast chromatin remodeling complexes possibly in response to the appearance of linker histones, a larger genome size and the need for tissue-specific heterochromatin. Yeast SWI/SNF and RSC complexes share Arp7 and Arp9 subunits, but not actin. The SWI/SNF-like BAF chromatin remodeling complexes in both *Drosophila* and mammals contain actin and Arp4 homologs, similar to yeast Ino80 and Swr1 complexes. In addition, BAF57, which has no homolog in the yeast SWI/SNF complex is similar to a subunit of Ino80 (nhp10). Swr1 subunit Swc4 also shares a SANT domain with BAF155 and BAF170. Mammalian SWI/SNF-like BAF complexes interact with Rb and HDAC and facilitate transcriptional repression ( Zhang et al., 2000).

### **Supplemental references**

- Cairns, B. R., Lorch, Y., Li, Y., Zhang, M., Lacomis, L., Erdjument-Bromage, H., Tempst, P., Du, J., Laurent, B., and Kornberg, R. D. (1996). *Cell* 87, 1249-1260.
- Krogan, N. J., Keogh, M. C., Datta, N., Sawa, C., Ryan, O. W., Ding, H., Haw, R. A., Pootoolal, J., Tong, A., Canadien, V., *et al.* (2003). *Mol Cell* 12, 1565-1576.
- Mizuguchi, G., Shen, X., Landry, J., Wu, W. H., Sen, S., and Wu, C. (2004). *Science* 303, 343-348.
- Shen, X., Mizuguchi, G., Hamiche, A., and Wu, C. (2000). *Nature* 406, 541-544.
- Zhang, H. S., Gavin, M., Dahiya, A., Postigo, A. A., Ma, D., Luo, R. X., Harbour, J. W., and Dean, D. C. (2000). *Cell* 101, 79-89.

**Supplemental Figure:** Alignments of the components of SWI/SNF-like complexes in yeast, *Drosophila* and mammals. Identical amino acids in more than half of the aligning proteins are boxed. While several subunits of the BAF complex do not have true homologues in yeast, BAF250 shares an ARID domain and LxxLL motif with Swi1, BAF180 shares two Bromodomains and one BAH domain with Rsc1/2 of the RSC complex, BAF57 shares an HMG domain with nhp10 of the Ino80 complex, and BAF53 is most close to Arp4 of the Swr1 complex. In addition, mammalian BAF complexes contain actin, similar to the Ino80 and Swr1 complexes, while yeast SWI/SNF and RSC do not have actin. BAF250 and ARID2 (BAF200) share the similarity of an ARID domain.

The conserved domains are highlighted in colors:

**Brg/Brm**, HSA domain in green; BRK domain in yellow; SNF2-like ATPase domain in red and Bromodomain in blue.

**BAF155/BAF170**, Chromo-related domain in green; SWIRM domain in yellow; SANT domain in red and Leu-zipper in blue. Note that yeast Swi3 has no conserved Chromo-related domain.

**BAF60**, SWIB/MDM2 domain in blue.

**BAF57**, HMG domain in blue; Coiled-coil domain in yellow. The alignments of HMG domains and potential Coiled-coil regions of BAF57 and yeast nhp10, an Ino80 complex subunit, are shown separately.

**BAF53**, the diverse actin-fold subdomain 2 is underlined.

**BAF47**, SNF5 domain in blue.

**BAF45a** and *Drosophila* SAYP are likely homologues and share similarities throughout the protein including 2 PHD domains (in yellow). SAYP has a long N-terminal extension that is not present in vertebrates.

**BAF45**, N-terminal domain in red; Krüppel domain in blue and PHD domains in yellow. *Drosophila* dd4 protein is the fly BAF45 homologue and is likely a BAP subunit although hasn't been shown experimentally. No yeast homologues are identified.

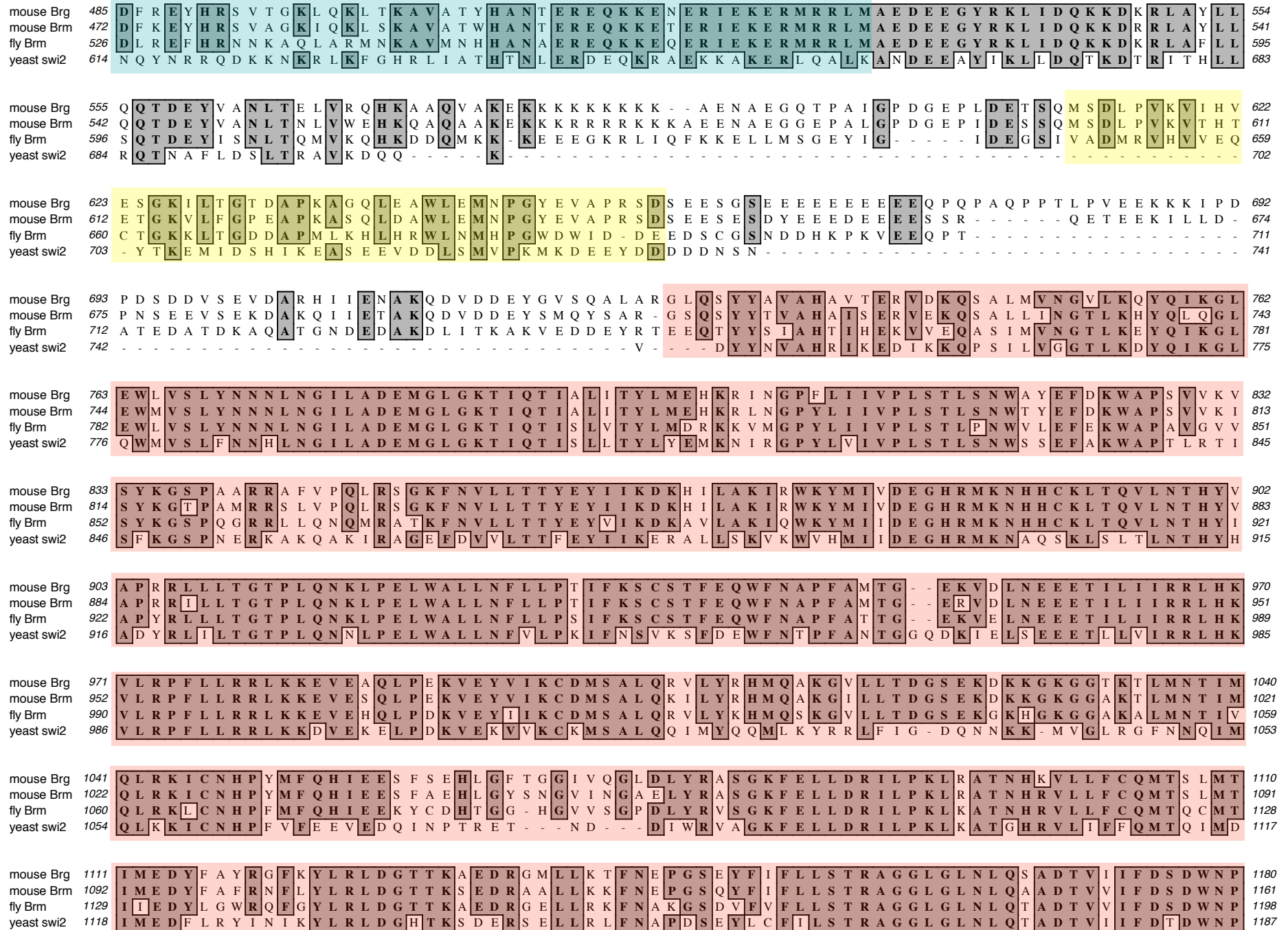
**BAF180**, Bromodomains in blue; BAH domains in yellow and HMG domain in red. Note that yeast Rsc1 and Rsc2 have only two Bromodomains and one BAH domain.

**BAF250**, ARID domain in blue; C1 region in red and C2 region in green.

**BAF200**, ARID domain in red; RFX domain in blue and Zn fingers in green.

The alignment of the ARID domains of BAF250 and BAF200 is shown separately.







BAF155/BAF170

mouse BAF155	1	M A A T A G G G P G A A A G A V G A G G A A A A S G L A V Y R R	K D G G	P A S K F W E S P D	T V S Q L D S	V R R V W L G K H Y K K Y	V H A - -	68
mouse BAF170	1		M A V R K K D G G	P N V K Y Y E A A D	T V T Q F D N	V R R L W L G K N Y K K Y	I Q A - -	41
fly BAP155	1	M N T L G P K	K D G S	P N I D F F Q S P E	T L Q G F E S	I R Q W L Q K N C K K Y	L A H S S	45
yeast swi3	1	M E N T L G E - - -	G S - - - - -	- - - - -	T V N A S V D	V D Q H G N D N N S D S N A N - -	- -	31
mouse BAF155	69	D A P T N K T L A G L V V Q L L Q F Q E D A F G K H V T N P A F T K L P A K C F M D F K A G G T L C H I L G A A Y K Y K N E Q G W R R F D L						138
mouse BAF170	42	E P P T N K S L S S L V V Q L L Q F Q E E V F G K H V S N A P L T K L P I K C F L D F K A G G S L C H I L A A A Y K F K S D Q G W R R Y D F						111
fly BAP155	46	E P I T K E S L A Q L L I H F L Q Y V E A K L G K N S A D P P A T R I P M R C F L D F K S G G G L C I I F S T M F R F R A E Q R G K K F D F						115
yeast swi3	32	- A A V A G V A N T D T A G E E S Q Q Q D E S L K D E A T V P N T R D A E S E A I T V T A K - - - - -					Q Q P T M Q A N K L D S	88
mouse BAF155	139	Q N - - - P S R M D R N V E M F M N I E K T L V Q N N C L T R P N I Y L I P D I D L K L A N K L K D I I K R H Q G T F T D E K S K A S H H I						205
mouse BAF170	112	Q N - - - P S R M D R N V E M F M T I E K S L V Q N N C L S R P N I F L C P E I E P K L L A N K L K D I V K R H Q G T I S E D K S N A S H V V						178
fly BAP155	116	S I G K N P T R K D P N I Q L L I E I E Q A L V E A D L Y R I P Y I Y I R P E I E K G F E G K L R E I L D N R R V E I V S D E E D A T H I V						185
yeast swi3	89	Q E - - - - - - - - - - - - - - - T P S T E E S R A Q N V F G Q D N - - - - - - - - - - - - - - - E D S D N L F G E T E S S V S N N E A N T						128
mouse BAF155	206	Y P Y P S S Q E D E E W L R P V M R R D K Q V L V H W G F Y P D S Y D T W V H S N D V D A E I E D A P I P E K P - - - - - W K V H V K W I						269
mouse BAF170	179	Y P V P G N L E E E E W V R P V M K R D K Q V L L H W G Y Y P D S Y D T W I P A S E I E A S V E D A P T P E K P - - - - - R K V H A K W I						242
fly BAP155	186	Y P V V D P H P D - E Y A R P I F K R G G H Y M L H W Y Y F P E S Y D S W A V N - - - N F D L P D H I P E N P E S P A E R W R V S A S W I						250
yeast swi3	129	P S I P T N P V D N E N N K P A I K E D S T I Q D S N G D V K N M E D V K I Q K - - - - - E E E P E N N T V I E G - - - - - V K E E S Q						186
mouse BAF155	270	L D T D V F N E W M N E E D Y E V D E N R K P V S F R Q R I S T K N E E P V R - S P E - - - - - R R D R K A S A N S R K R K P S P S P P P P T A T						336
mouse BAF170	243	L D T D T F N E W M N E E D Y E V S D D K S P V S R R K K I S A K T L T D E V N S P D S D R R D - K K G G N Y K K R K R S P S P S P - - - - - T P						309
fly BAP155	251	V D L E Q Y N E W M A E E D Y E V D E Q G K K T H K Q R M S I D D I M S F G - - D E K K K P A A S S G G G K Q K R R R S P S P A S S A S T						318
yeast swi3	187	P D E N T K E M D E V E E D D E D D Q - - - P - - - - - M I S P D N S I F G D T K S E S - - - K Q - - - L G N T S S V A N T P S E I P - D A H						243
mouse BAF155	337	E S R K K S G K K G Q A S L Y G K R R S Q K E E D E Q E D L T K D M E D P T P V P N I E E V V L P K N V N P K K D S E N - - - - - - - - -						396
mouse BAF170	310	E A K K K N A K K G P S T P Y T K S K R G H R E E E Q E D L T K D M D E P S P V P N V E E V T L P K T V N T K K D S E S - - - - - - - - -						369
fly BAP155	319	S K P G K R - K R S P A V V H K K S R N - - - D D D E D L T R D L D D P A E P N V Q E V H K A N A A L Q S T A S P A P G G K S R G D N D						384
yeast swi3	244	K A E Q E D I I E K T E S V D K K V D S G E E R N E Q E R E I M N D H S K S A N P -						284
mouse BAF155	397	- T P V K G G T V A D L D E Q D E E - - - - - A V T T G G K - E D E D P S - - - K G D P S R S V D P G - - - - - - - - - E D N V T E Q T N H I I						449
mouse BAF170	370	- A P V K G G T M T D L D E Q D D E - - - - - S M E T T G K D E D E N S T G N K G E Q T K N P D L H - - - - - - - - - E D N V T E Q T H H I I						425
fly BAP155	385	M M P I K G G T M T D L D D E M T G G S A A Q A M S T I G D G - - - - - E N S Q T G K T S D N S N T Q E F S S S A K E D M E D N V T E Q T H H I I						451
yeast swi3	285	- - - K - T T I T R V E P E T F E I P -						306
mouse BAF155	450	I P S Y A S W F D Y N C I H V I E R R A L P E F F N G K N K S K T P E I Y L A Y R N F M I D T Y R L N P Q E Y L T S T A C R R N L T G D V C						519
mouse BAF170	426	I P S Y A A W F D Y N S V H A I E R R A L P E F F N G K N K S K T P E I Y L A Y R N F M I D T Y R L N P Q E Y L T S T A C R R N L A G D V C						495
fly BAP155	452	V P S Y S A W F D Y N S I H V I E K R A M P E F F N S K N K S K T P E I Y M A Y R N F M I D T Y R L N P T E Y L T S T A C R R N L A G D V C						521
yeast swi3	307	I P S Y S K W F N L E K I H S I E V Q S L P E F F T N R I P S K T P E I Y M R Y R N F M V N S Y R L N P N E Y F S V T T A R R N V S G D A						376
mouse BAF155	520	A V M R V H A F L E Q W G L V N Y Q V D P E S R P M A M G P P P T P H F N V L A D T P S G L V P L H L R S P Q - V P A A Q Q M L N F P E K N						588
mouse BAF170	496	A I M R V H A F L E Q W G L I N Y Q V D A E S R P T P M G P P P T S H F H V L A D T P S G L V P L Q P K P P Q Q S S A S Q Q M L N F P E K G						565
fly BAP155	522	A I M R V H A F L E Q W G L I N Y Q I D A D V R P T P M G P P P T S H F H I L S D T P S G L Q S I N P Q K T Q Q P S A A K T L L D L D K K P						591
yeast swi3	377	A L F R L H K F L T K W G L I N Y Q V D S K L L P K N I E P P L T S Q Y S T R H D A P R G L F P F E S Y K P S - - - - - V Q L P D M A K L K						441
mouse BAF155	589	K E K P -						627
mouse BAF170	566	K E K P -						606
fly BAP155	592	L G K D G G L E L G D K S G L T G I K T E A L E N G A A G G L S S G V S Q F G L K L D Q Y A K K P A A M R N R - T A A S M A R E W T D Q E T						660
yeast swi3	442	K M M N T S D S E S - T L Y K Y L K E S K R K Y D E I T H P P S T T D D E N G D K N D N G G K M N N E V S T S T S M T G D A N L L E E G E T						510







### BAF57

mouse BAF57 1 M S K R P S Y A P P P T P A P A T Q M P S T P G F V G Y N P Y S H L A Y N N Y R L G G - - - - - N P G - T N S R V T A 53  
 fly BAP111 1 M A L P S N Y K Q I A V G G Q G S A T P L Q G G G G S G G G S R S R S S G G G G G D R N K D Q T P I F T H S N Y G N P A F T P Q K V T K 70

mouse BAF57 54 S S G - - - - I T I P K P P K P P D K P L M P Y M R Y S R K V W D Q V K A S N P D L K L W E I G K I I G G M W R D L T D E E K Q E Y L N 117  
 fly BAP111 71 S S S S K N Q N E S R L P K P P K P P E K P I L P Y M R Y S K R V W D S V K A K H P E L K L W E L G K K I G A M W K L L P E D E K T E F I D 140

mouse BAF57 118 E Y E A E K I E Y N E S M K A Y H N S P A Y L A Y I N A K S R A E A A L E E E S R Q R Q S R M E K G - - E P Y M S I Q P A E D P D D Y D D G 185  
 fly BAP111 141 E Y E A E K L E Y E K S L K A Y H Q T P A Y Q A Y M S A K S K V K T D V D M H E T P S R G G G S K S Q H E R R I D I Q P A E D E D D Q D E G 210

mouse BAF57 186 F S M K H T A T A R F Q R N H R L I S E I L S E S V V P D V R S V V T T A R M Q V L K R Q V Q S L M V H Q R K L E A E L L Q I E E R H Q E K 255  
 fly BAP111 211 Y T T K H L A Y A R Y L H N H R L I N E I F S E A V V P D V R S V V T T T R M Q V L K R Q V S S L T M H Q T K L E A E L Q Q M E E K F E A K 280

mouse BAF57 256 K R K F L E S T D S F N N E L K R L C G L K V E V D M E K I A A E I A Q A E E Q A R K - R Q E E R E K - - - - - E A A 308  
 fly BAP111 281 K Q R M V E S S E A F Q E E L K R H C - - K P A V D E E T F Q K M V L R M Y E D I K R D R Q R L D E P N A N A N S A A N P A A A A T A A A 348

mouse BAF57 309 E Q A E R S Q S S M A P E E E - - Q - V A N K A E E K - - - - - K - - - - - D E E S I P M E T E E T H L E D T 350  
 fly BAP111 349 A P V T R S E E A V K P P T Q P G Q P A A T P A G Q E P A S A V P A P A A P P K E T P P A V K P A T L N P T P S S T P T P A P A V H V H E T 418

mouse BAF57 351 A E S Q Q - - - N G E E G - - T S T P E D - - K E S G Q E G V D S M E V E G T S D S N T G S E - - - - S N S A T V E E P P T D P V P E D 407  
 fly BAP111 419 A S K T D P E P M D I E P P P K P S V P P P P I K P E K L E M A A A L P P Q S T L V E P P K T E P A K V V A Q P G K V P T P V P T P T P P P 488

mouse BAF57 408 E K K E 411  
 fly BAP111 489 E V A P A A G A A T A A T T T 503

### HMG Domain

mouse BAF57 64 K P P D K P L M P Y M R Y S R K V W D Q V K A S N P D L K L W E I G K I I G G M W R D L T D E E K Q E Y L N E Y E A E K I E Y N E S M K A Y 133  
 fly BAP111 87 K P P E K P I L P Y M R Y S K R V W D S V K A K H P E L K L W E L G K K I G A M W K L L P E D E K T E F I D E Y E A E K L E Y E K S L K A Y 156  
 yeast nhp10-HMG 95 K R P T N A Y L L Y C E M N K E R I R Q N G S L D V T R D L A E G W K N L N E Q D R K P Y Y K L Y S E D R E R Y Q M E M E I Y N K K I S N I 164

### Potential Coiled-Coil

mouse BAF57 218 V V T T A R M Q V L K R Q V Q S L M V H Q R K L E A E L L Q I E 249  
 yeast nhp10 13 L K D Q N V V L G L A I Q R S R L S V K R L K L E Y G V L L E R 44

### BAF53

mouse BAF53a	1	<b>M S G G G</b> - - - <b>V Y G G D E V G A L V F D</b> I <b>G S</b> Y T V <b>R A</b> <b>G Y A G E D C</b> <b>P K</b> V D F <b>P</b> T A I <b>G</b> V V L E R D D G S T - - - M M E I D G D K G K Q G	64
mouse BAF53b	1	<b>M S G G G</b> - - - <b>V Y G G D E V G A L V F D</b> I <b>G S</b> F S V <b>R A</b> <b>G Y A G E D C</b> <b>P K</b> A D F <b>P</b> T T V <b>G</b> L L A <b>A E</b> <b>E</b> G G - - - - G L E L E G E K E K K G	62
fly BAP55	1	<b>M S G G G</b> T M - <b>L Y G G D E I G A L V F D</b> P <b>G H</b> H S L <b>R V</b> <b>G Y A Q E D S</b> <b>P K</b> A E I <b>P</b> S V V <b>G</b> I G A <b>A P</b> <b>E</b> T N L D P E T K T D N N A T P N N A D	69
yeast arp4	1	<b>M S</b> <b>N</b> A A L Q <b>V Y G G D E V S</b> <b>A V</b> <b>V I</b> D P <b>G S</b> Y T T N I <b>G Y</b> <b>S</b> <b>G S</b> <b>D</b> F <b>P</b> Q S I L <b>P</b> S V Y <b>G</b> K Y T <b>A D</b> <b>E</b> G N - - - - - - - - - - - - - - -	53
<hr/>			
mouse BAF53a	65	G P T Y Y I <b>D T N</b> A L R <b>V P R</b> E N M <b>E</b> A I S P L <b>K N G M</b> V E <b>D W D S</b> <b>F</b> Q A I L <b>D</b> H T <b>Y</b> K M H V K <b>S E</b> A S - L <b>H P V L</b> M <b>S E A</b> P <b>W N</b> T <b>R A K R</b>	133
mouse BAF53b	63	- K I F H I <b>D T N</b> A L H <b>V P R</b> D G A <b>E</b> V M S P L <b>K N G M</b> I E <b>D W E C</b> <b>F</b> R A I L <b>D</b> H T <b>Y</b> S K H V K <b>S E</b> P N - L <b>H P V L</b> M <b>S E A</b> P <b>W N</b> T <b>R A K R</b>	130
fly BAP55	70	Q R K F Y V <b>D T N</b> Y V T <b>V P R</b> S N M <b>E</b> V Q T Y M <b>K D</b> <b>G M</b> I D N <b>W D L</b> <b>F</b> E K V I <b>D</b> Y A <b>Y</b> A N V I Q <b>S E</b> P E - Y <b>H P V L</b> F <b>S E A</b> S <b>W N</b> V <b>R N N R</b>	138
yeast arp4	54	- - K K I F S E Q S I G I <b>P R</b> K D Y <b>E</b> L K P I I E <b>N G</b> L V I <b>D W D</b> T A Q E Q W Q W A L Q N E L Y L N S N S G I <b>P A</b> L L T <b>E</b> P V <b>W N</b> S T E N <b>R</b>	121
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mouse BAF53a	134	<b>E K L T E L M F E</b> H <b>Y S</b> I <b>P A F F L</b> C <b>K T A V L</b> T <b>A F A N</b> <b>G R S</b> T <b>G</b> L I L <b>D S G A T H T</b> T <b>A I</b> <b>P V H D G Y V L</b> Q <b>Q</b> G I <b>V K S P L A G D F I</b> T	203
mouse BAF53b	131	<b>E K L T E L M F E</b> Q <b>Y N</b> I <b>P A F F L</b> C <b>K T A V L</b> T <b>A F A N</b> <b>G R S</b> T <b>G</b> L V L <b>D S G A T H T</b> T <b>A I</b> <b>P V H D G Y V L</b> Q <b>Q</b> G I <b>V K S P L A G D F I</b> S	200
fly BAP55	139	<b>E K L T E L M F E</b> K <b>Y N</b> V <b>P A F F L</b> V <b>K N</b> <b>A V L A</b> <b>A F S S</b> <b>G R A</b> T <b>A</b> L V V <b>D S G A T H T</b> S <b>A V</b> <b>P V H E</b> <b>G Y V L S</b> <b>Q</b> A V <b>V K S P L G D F L S</b>	208
yeast arp4	122	K <b>K S</b> L <b>E</b> V L L <b>E</b> G M Q F <b>E</b> <b>A C Y L</b> A P <b>T S</b> T C V S <b>F A A</b> <b>G R</b> P N C <b>L V</b> V <b>D I G</b> H D T C S V S <b>P I</b> V <b>D G M T L S</b> K S T R R N F I <b>A G K F I</b> N	191
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mouse BAF53a	204	M <b>Q C R</b> E L F Q E M N <b>I E</b> L <b>I P P</b> Y M <b>I A S</b> - - <b>K E A</b> V R - - - - <b>E</b> G S P A N W K - - - - - R K <b>E</b> K L P Q V T R <b>S W H</b> <b>N Y M</b> C N C V I	259
mouse BAF53b	201	M <b>Q C R</b> E L F Q E M A <b>I D</b> I <b>I P P</b> Y M <b>I A A</b> - - <b>K E P</b> V R - - - - <b>E</b> G A P P N W K - - - - - K K <b>E</b> K L P Q V S K <b>S W H</b> <b>N Y M</b> C N E V I	256
fly BAP55	209	R <b>Q C R</b> Q H L E K H G <b>I D</b> L S <b>P V</b> Y <b>K I A S</b> - - <b>K D V</b> K - - - - - <b>E</b> R D N G R F T - - - - - L R K L P E N L T Q <b>S W Q</b> <b>N Y M</b> L Q L M M	264
yeast arp4	192	H L I K K A L E P K - - E I <b>I P</b> L F A <b>I K</b> Q R K P <b>E F</b> I K K T F D Y <b>E</b> V D K S L Y D Y A N N R G F F Q <b>E</b> C K E T L C H I C P T K T L E E T K	259
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mouse BAF53a	260	<b>Q D F Q</b> A S <b>V L Q V</b> S D <b>S T Y D E</b> Q <b>V A A Q M P T</b> - - - - - - - - - - - - - - - <b>V H Y E F P N G</b> - - - - <b>Y N C</b> <b>D F G A E R</b> L K <b>I P E G</b>	307
mouse BAF53b	257	<b>Q D F Q</b> A S <b>V L Q V</b> S D <b>S P Y D E</b> Q <b>V A A Q M P T</b> - - - - - - - - - - - - - - - <b>V H Y E M P N G</b> - - - - <b>Y N T</b> <b>D Y G A E R</b> L R <b>I P E G</b>	304
fly BAP55	265	<b>Q D F Q</b> M N <b>V L Q V</b> L E N <b>P F D E</b> R <b>V A A Q I P T</b> - - - - - - - - - - - - - - - <b>V H Y E F P N G</b> - - - - <b>Y H Q</b> <b>D F G S E R</b> F K <b>I A E S</b>	312
yeast arp4	260	T E L S S T A K R S I E <b>S P</b> W N <b>E</b> I V F D N E <b>T</b> R Y G F A E E L F L P K E D D I P A N W P R S <b>N S</b> G V V K T W R N <b>D Y</b> V P L K R T K <b>P S G</b>	329
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mouse BAF53a	308	<b>L F D</b> P - S N V K G L S <b>G</b> - - - - - - - - - - - - - - - <b>N T</b> <b>M L G</b> V S H V <b>V T</b> <b>T S</b> V <b>G M C D I D</b>	339
mouse BAF53b	305	<b>L F D</b> P - S N V K G L S <b>G</b> - - - - - - - - - - - - - - - <b>N T</b> <b>M L G</b> V G H V <b>V T</b> <b>T S</b> I <b>G M C D I D</b>	336
fly BAP55	313	<b>L F D</b> - <b>N A</b> <b>M L G</b> A G Q L A S <b>T S</b> V <b>G M C D A D</b>	335
yeast arp4	330	V N K S D K K V T P T E E K E Q E A V S K S T S P A A N S A D T P N E T <b>G</b> K R P L E E E K P P K E N <b>N E</b> L I <b>G</b> L A D L <b>V Y S S</b> I M S S <b>D V D</b>	399
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mouse BAF53a	340	I <b>R P</b> G <b>L Y G S V</b> I <b>V A G G N T L</b> I <b>Q S F T</b> <b>D R L N R E L</b> S Q K T <b>P P</b> <b>S M</b> <b>R L K L I A N N T T V</b> <b>E R R</b> <b>F S S</b> <b>W I G G S I L A S L G T F Q Q M</b>	409
mouse BAF53b	337	I <b>R P</b> G <b>L Y G S V</b> I <b>V T G G N T L L</b> <b>Q G F T</b> <b>D R L N R E L</b> S Q K T <b>P P</b> <b>S M</b> <b>R L K L I A S N S T M</b> <b>E R R</b> <b>K F S P</b> <b>W I G G S I L A S L G T F Q Q M</b>	406
fly BAP55	336	V <b>R L S L F G S V V</b> <b>V T G G N T L L</b> <b>Q G F P</b> <b>E R L N R D L</b> Q L R A <b>P S N T</b> <b>R L K M I S A N G S V</b> <b>E R R</b> <b>F G A</b> <b>W I G G S I L A S I G T F Q Q M</b>	405
yeast arp4	400	L <b>R A</b> T <b>L A H N V</b> V <b>L T G G T S S I P G L S</b> <b>D R L M T E L</b> N K I L <b>P</b> - <b>S</b> L K F R I L T T G H <b>T I</b> <b>E R</b> Q Y Q S <b>W L G G S I L T S L G T F H Q L</b>	468
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mouse BAF53a	410	<b>W I S K Q E Y E E</b> G <b>G K</b> Q C <b>V E R K C P</b>	429
mouse BAF53b	407	<b>W I S K Q E Y E E</b> G <b>G K</b> Q C <b>V E R K C P</b>	426
fly BAP55	406	<b>W I S S Q E Y E E</b> A <b>G K S Q</b> <b>V E R K C P</b>	425
yeast arp4	469	<b>W V G K K E Y E E</b> V <b>G</b> V E R L L N D R F R	489



### BAF45a/SAYP

mouse BAF45a 1 M A A A G P G A A L **S**P G **R**C D S - - - - - **D**P - - - - - A **S**P G A Q **S**P K D D N **E**D - - - - - **N**S N D - - - - - G T H **P**C 42  
 Fly SAYP 1 M **S**R P **R**C V G G L K H Q P **D**P E R L K G L F **S**P - - - **S**P Q V F E **E**D T R M S A D L S **N**S N Q S M A S L M E P P L T **P**Q 58

mouse BAF45a 43 **K**R R R M G - - - - - **S**G D **S**S R **S**C E T **S**S **Q**D - - - - - L S F S Y **Y**P **A**E N L I **E**Y **K** **W**P P **D**E 82  
 Fly SAYP 59 **K**Q P D F L N N E E S Q **S**S M V **S**N V **S**M M D **S**N **Q**G Q S A D A I L G S A L K R P K K K K M E T C V A E D T D **Y**S **A**S S I A **E**Y **D** **W**P P **P**K 128

mouse BAF45a 83 - - - - - T G E Y Y **M**L **Q**E Q V **S**E **Y**L G V **T**S F K R K Y P D L **E** **R**R D L Y H K **E**K L Y **L**R **E**L N V I T **E**T Q **C**T **L**G L **T**A L R S D E V I 146  
 Fly SAYP 129 G C C P S K N R D T F **M**I **Q**E Q V A L **Y**L G I **T**S F K R K Y P D L **P** **R**R S V D M E **E**R N W **L**Q **E**K G L V S **E**K L **C**D **L**G I **T**A V W A S D I L 198

mouse BAF45a 147 **D**L **M**I K E Y P A **K**H A **E**Y S V I L Q E **K**E R Q R I T D **H**Y K **E**Y S Q M **Q**Q Q S T Q K **V**E **A**S K V P E Y I K K **A**A K K **A**A E F **N**S N L **N**R E 216  
 Fly SAYP 199 **D**I **M**Y A D F F D **K**Y E **E**Y K E Y I R R **K**- - - - - **H**L R **E**I E A K **Q**K A L G L T **V**G **A**G R G L Q A R D R **A**M L S **A**T K W **N**A Y F **N**K S 261

mouse BAF45a 217 **R**M E **E**R R A Y F **D**L Q T H V **I**Q V **P**Q G - - - - - K Y K V **L**P - - - - - T D **R**T K V S S **Y** 252  
 Fly SAYP 262 **R**K D **E**R Q S C M **D**L Q T F T **I**N Q **P**Q P R T A P T C T R L E R S T S D L I R A V A E E A N I P A P P N L **L**P P R D Y D E A F **R**N S D Y A **Y** 331

mouse BAF45a 253 **P**V A L I **P**G **Q**F Q E Y **Y**K R Y S **P**D **E**L R Y L **P**L N **T**A L Y E **P**P L **D**P E L P A **L**D S D - - - - - **G**D **S**D - - - - - D G E **D**G **G**G - - - 308  
 Fly SAYP 332 **P**L T V V **P**D **Q**F S M A **Y**R Q F E **P**A **E**L R A Y **P**L D **T**A L D K **P**P T **D**L M A Q L **L**Q A K S E A V **G**- **S**D E I K T S A P A P K **D**L **G**Q E Q S 400

mouse BAF45a 309 - - - - - **D**E K **R**K N K G T **S**D **S**S S G N **V**S E G D **S**P P D **S**Q E **D**T F H **G**R Q K **S**K D K V A T P R K **D**G 356  
 Fly SAYP 401 A I K S V T V T A P V R R S R R S T R Q Q T **D**K V **R**T A S S S **S**T **S**S A Q S **V**S S A S **S**G N G **S**S S **D**T E S **G**D E - **S**- - - - - **D**F 460

mouse BAF45a 357 **S**K R **S**V L **S**K **S**A P G Y K P K V I P N - - - - - A L **C**G I **C**L K G K E S **N**K K G K A **E**S L **I**H **C**S Q **C**D N S G **H**P S C L **D**M 414  
 Fly SAYP 461 **S**S T **S**S C **S**S **S**T G A S S G A G S E D E D G N E C S S S V R L S T **C**G V **C**L R S Q H R **N**A R D M P **E**A F **I**R **C**Y T **C**R K R V **H**P S C V **D**M 530

mouse BAF45a 415 **T**V E L **V**S M I K T **Y**P **W**Q C M E **C**K T **C**I I **C**G Q P H H E E E **M**M F **C**D V **C**D R G Y H T F **C**V **G**L G A I **P**S **G**R W I **C**D C **C**Q R A P P T P 484  
 Fly SAYP 531 **P**P R M **V**G R V R N **Y**N **W**Q C A G **C**K C **C**I K **C**R S S Q R P G K **M**L Y **C**E Q **C**D R G Y H I Y **C**L **G**L R T V **P**D **G**R W S **C**E R **C**C F C M R C G 600

mouse BAF45a 485 R K V G R - - - - - R **G**K N **S**K E **G** 497  
 Fly SAYP 601 A T K P E G L P Q V A A L S Q A S **G**G P **S**A N **G**D R S K A A R N K R L K W V H E Y R I D H V T K I R E H A A M F C V P C A R N K P A K R Q S 670

mouse BAF45a 498 497  
 Fly SAYP 671 A A G A A G A A A V T P V L E A T S A Q T D D S P M P S P G L T T N G G R A L S P T A A L S P K A A V P V A S L P P V L E A T T V T T N I A 740

mouse BAF45a 498 497  
 Fly SAYP 741 G T I G R R Q A G N A V N I T T M Q C S S S S S N F S G N G V T E D A A N V T A T G T A T A A A G A P A A T P I G I A P P P V V A 806

### BAF45

mouse BAF45b	1	M A T V I P S P L S - L G E D F Y R E A I E H C R S Y N A R L C A E R S L R L P F L D S Q T G V A Q N N C Y I W	55
mouse BAF45c	1	M A T V I H N P L K A L G D Q F Y K E A I E H C R S Y N S R L C A E R S V R L P F L D S Q T G V A Q N N C Y I W	56
mouse BAF45d	1	M A A V V E N V V K L L G E Q Y Y K D A M E Q C H N Y N A R L C A E R S V R L P F L D S Q T G V A Q S N C Y I W	56
fly dd4	1	M A S K S A Y E K T L V V N I A N F E K I Q N F L N D K E K Y K E I L E N S E N F N T R L C I E R R L R M P F L D P Q T G V A Q T H C S L F	70
mouse BAF45b	56	M E K T H R G P G L A P G Q I Y T Y P A R C W R K - K R - - - - - R L N I L E D P R L R P C E Y K I D C E A P L K K E G G L P E -	113
mouse BAF45c	57	M E K R H R G P G L A P G Q L Y T Y P A R C W R K - K R - - - - - R L H P P E D P K L R L L E I K P E V E L P L K K D G F T S E -	114
mouse BAF45d	57	M E K R H R G P G L A S G Q L Y S Y P A R R W R K - K R - - - - - R A H P P E D P R L S F P S I K P D T D Q T L K K E G L I S Q D	115
fly dd4	71	M K K K Q R M P G L R H G Q I Y T Y P S S R W R K P K R Q Y L L N P N Q S F R A Y Q Y R E H N L Q H S H H Q T H Q H H H I P S S G V A V P	140
mouse BAF45b	114	G P V L E A L L C A E T G E K K - - - - - V E L K - - - - - E E E T I M D C Q K Q Q - - L L E F P H D L E V E D L E E D I P R R K N - - - -	167
mouse BAF45c	115	S T T L E A L L R G E G V E K K - - - - - V D A R - - - - - E E E S I Q E I Q R V L E N D E N V E E G N E E E D L E E D V P R R K N - - - -	170
mouse BAF45d	116	G S S L E A L L R T D P L E K R G A P D P R V D D D S L G E F P V S N S R A R K R I I E P D D F L D D L D D E D Y E E D T P K R R G - - - -	181
fly dd4	141	Q N P H L A E S A A I A A T D G N S M G A S G D N D S - - - - - K D S H A N V E K E W F H D E M D T S H F H H G D E F E D D F D S D N D F D E	206
mouse BAF45b	168	- - R A R G K A Y G I G G L R K R Q D T A S L E D R D K P Y V C D I C G K R Y K N R P - G L S -	211
mouse BAF45c	171	- - R T R G R A R G S A G G R R R H D A S Q E D H D K P Y V C D I C G K R Y K N R P - G L S -	214
mouse BAF45d	182	- - K G K S K S K G V S S A R K K L D A S I L E D R D K P Y A C D I C G K R Y K N R P - G L S -	225
fly dd4	207	S Y T S R G K R K K C S - - R P R R T N A N V E G T P K - R G R K G G G N R R K N A V E G E S D R K R R A G G N S A N T S A A A A A A A A	273
mouse BAF45b	212	- Y H Y T H T H L A E E E G E E H T - - E R H A L P F H R K N -	239
mouse BAF45c	215	- Y H Y A H T H L A S E E G D E A Q D Q E T R S P P N H R -	242
mouse BAF45d	226	- Y H Y A H S H L A E E E G E D K E D S R P P T P V S Q R S -	254
fly dd4	274	V A H A A C T A A A V A S T G L Y A S H S N S A S P I P I N D D N S Q S G L I L P T N I S S S Y D K T S S D A G A S N D S I P L A T M V A I	343
mouse BAF45b	240	- - - - - - - - - N H K Q F Y K E L A W V P E A Q R K H T A K K A P D G T V I P N N G Y C D F C L G G S - - - K K T G C P E D L I S C A D C	296
mouse BAF45c	243	- - - - - - - - - N -	287
mouse BAF45d	255	- -	298
fly dd4	344	N A G L T T S N V C N A H P V Q T G T N Q T V F A T G N K V K Q R V E R D I A Q P S P Y C D F C L G D Q R E N K K T N M P E E L V S C S D C	413
mouse BAF45b	297	G R S G H P S C L Q F T V N M T A A V R T Y R W Q C I E C K S C S L C G T S E N D D Q L L F C D D C D R G Y H M Y C L S P P M A E P P E G S	366
mouse BAF45c	288	G R S G H P T C L Q F T L N M T E A V K T Y K W Q C I E C K S C I L C G T S E N D D Q L L F C D D C D R G Y H M Y C L N P P V A E P P E G S	357
mouse BAF45d	299	G R S G H P S C L Q F T P V M M A A V K T Y R W Q C I E C K C C N L C G T S E N D D Q L L F C D D C D R G Y H M Y C L T P S M S E P P E G S	368
fly dd4	414	G R S G H P S C L Q F T A N M I I S V K R Y R W Q C I E C K Y C S I C G T S D N D D Q L L F C D D C D R G Y H M Y C L S P P L V T P P E G S	483
mouse BAF45b	367	W S C H L C L R H L K E K A S A Y I T L T	387
mouse BAF45c	358	W S C H L C W E L L K E K A S A F G C Q A	378
mouse BAF45d	369	W S C H L C L D L L K E K A S I Y Q N Q N S S	391
fly dd4	484	W S C K L C M E E F H K I K	497

actin

mouse bactin	1	<b>M</b> D D I <b>A</b> A L V V D N G S G M C K A G F A G D D A P R A V F P S I V G R P R H Q G V M V G M G Q K D S Y V G D E A Q S K R G I L T L K Y	69
fly bactin	1	M <b>C</b> <b>D</b> E <b>E</b> V A A L V V D N G S G M C K A G F A G D D A P R A V F P S I V G R P R H Q G V M V G M G Q K D S Y V G D E A Q S K R G I L T L K Y	70
yeast actin	1	<b>M</b> <b>D</b> S <b>E</b> V A A L V <b>I</b> D N G S G M C K A G F A G D D A P R A V F P S I V G R P R H Q G <b>I</b> M V G M G Q K D S Y V G D E A Q S K R G I L T L <b>R</b> <b>Y</b>	69
mouse bactin	70	<b>P</b> I E H G I V T N W D D M E K I W H H T F Y N E L R V A P E E H P V L L T E A P L N P K A N R E K M T Q I M F E T F N T P A M Y V A I Q A V	139
fly bactin	71	<b>P</b> I E H G I V T N W D D M E K I W H H T F Y N E L R V A P E E H P V L L T E A P L N P K A N R E K M T Q I M F E T F N T P A M Y V A I Q A V	140
yeast actin	70	<b>P</b> I E H G I V T N W D D M E K I W H H T F Y N E L R V A P E E H P V L L T E A P <b>M</b> N P K <b>S</b> N R E K M T Q I M F E T F N <b>V</b> P A <b>F</b> Y V <b>S</b> I Q A V	139
mouse bactin	140	<b>L</b> S L Y A S G R T T G I V <b>M</b> D S G D G V T H T V P I Y E G Y A L P H A I L R L D L A G R D L T D Y L M K I L T E R G Y S F T T T A E R E I V	209
fly bactin	141	<b>L</b> S L Y A S G R T T G I V L D S G D G V <b>S</b> H T V P I Y E G Y A L P H A I L R L D L A G R D L T D Y L M K I L T E R G Y S F T T T A E R E I V	210
yeast actin	140	<b>L</b> S L Y <b>S</b> S G R T T G I V L D S G D G V T H <b>V</b> V P I Y <b>A</b> G <b>F</b> S L P H A I L R <b>I</b> D L A G R D L T D Y L M K I L <b>S</b> E R G Y S <b>F</b> <b>S</b> T T A E R E I V	209
mouse bactin	210	<b>R</b> D I K E K L C Y V A L D F E Q E M A T A A S S S S L E K S Y E L P D G Q V I T I G N E R F R C P E A L F Q P S F L G M E S C G I H E T T <b>F</b>	279
fly bactin	211	<b>R</b> D I K E K L C Y V A L D F E Q E M A T A A S S S S L E K S Y E L P D G Q V I T I G N E R F R C P E A L F Q P S F L G M E <b>A</b> C G I H E T T <b>Y</b>	280
yeast actin	210	<b>R</b> D I K E K L C Y V A L D F E Q E M <b>Q</b> T A A <b>Q</b> S S S <b>I</b> E K S Y E L P D G Q V I T I G N E R F R <b>A</b> P E A L F <b>H</b> P S <b>V</b> L G <b>L</b> E S <b>A</b> G I D Q T T <b>Y</b>	279
mouse bactin	280	<b>N</b> S I M K C D V D I R K D L Y A N T V L S G G T T M Y P G I A D R M Q K E I T A L A P S T M K I K I I A P P E R K Y S V W I G G S I L A S L	349
fly bactin	281	<b>N</b> S I M K C D V D I R K D L Y A N T V L S G G T T M Y P G I A D R M Q K E I T A L A P S T M K I K I I A P P E R K Y S V W I G G S I L A S L	350
yeast actin	280	<b>N</b> S I M K C D V D <b>V</b> R K <b>E</b> L Y <b>G</b> N <b>I</b> V <b>M</b> S G G T T M <b>F</b> P G I A <b>E</b> R M Q K E I T A L A P S <b>S</b> M K <b>V</b> K I I A P P E R K Y S V W I G G S I L A S L	349
mouse bactin	350	<b>S</b> T F Q Q M W I S K Q E Y D E S G P S I V H R K C F	375
fly bactin	351	<b>S</b> T F Q Q M W I S K Q E Y D E S G P S I V H R K C F	376
yeast actin	350	<b>T</b> T F Q Q M W I S K Q E Y D E S G P S I V H <b>H</b> K C F	375









### BAF250

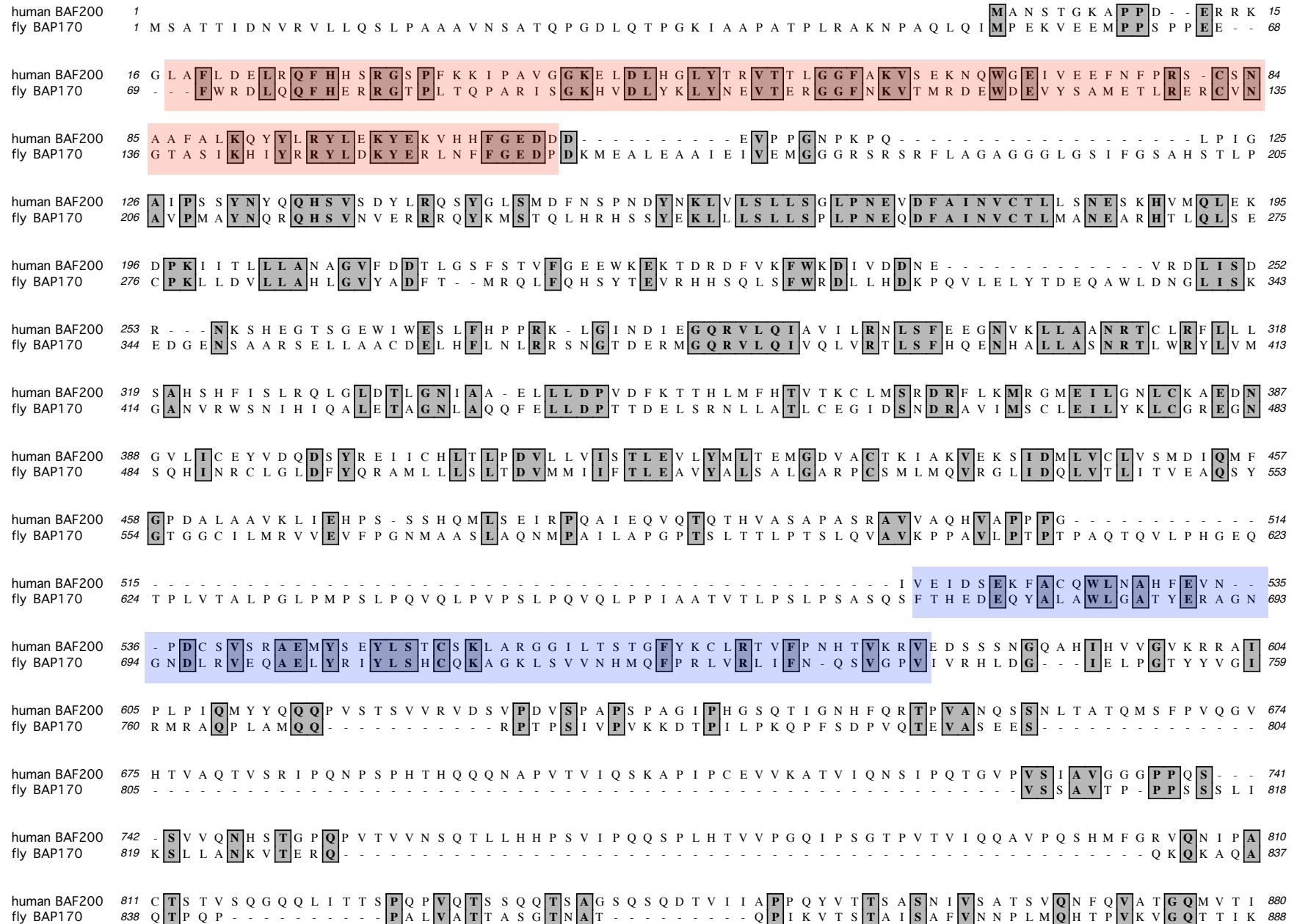
human BAF250a	1	M A A Q V A P A A A S S L G N - - P P P P P - P S E L K K A E Q Q Q R E E A G G E A A A A A A A E R G E M K A A A G Q E S - - - E G P A V	63
human BAF250b	1	M E T G L L P N H K L K T V G - - E A P A A - P P H Q Q H H H H H H A H H H H H H A H H L H H H H A L Q Q Q L N Q F Q Q Q - - - Q Q Q Q Q	63
fly Osa	1	M N E K I K S P Q T Q Q Q Q G G A P A P A A T P P S A G A A P G A A T P P T S G P P T P N N N S N N G S D P S I Q Q Q Q Q N V A P H P Y G	70
yeast swi1	1	M D F F N L N N N N N N N - - T T T T - - - - - - - - T T T T N N N N T N N N N T N N N N N P A N N T N - - - - - - - - - - -	43
human BAF250a	64	G P P Q P - L G K E L Q D G A E S N G G G G G G A G S - G G G P G A E P D L K N S N G N A G P R P A L N N N L T E P - P G - - - - - - - - G	123
human BAF250b	64	Q Q Q Q Q - Q Q Q Q H P I S N N N S L G G A G - - - G G A P Q P G P D M E Q P Q - H G G A K D S A A G G Q A D P - P G P P L L S K P G	125
fly Osa	71	A P P P P G S G P G G P P G P D P A A V M H Y H H L H Q Q Q Q Q H P P P P H M Q Q Q Q H H G G P A P P P P G G A P E H A P G - - - - - V K E	135
yeast swi1	44	- - - - - - - - - - - N N S T G H S S - - - - - - - - - - - N T N - - - - - N N T N N N N T N T - G - - - - - - - - -	66
human BAF250a	124	G G G G S S D G V G A P P H S A A A A L P - P P A Y G F G Q P Y G R S P S A V A A A A A A V F H Q Q H G G Q Q S P G L A A L Q S G G G G L	192
human BAF250b	126	D E D D A P P K M G E P A G G R Y E H P G - L G A L G T Q Q P P V A V P G G G G P A A V P E F N N Y Y G S A A P - - - A S - - - G P G - - -	187
fly Osa	136	E Y T H L P P P H P H P A Y G R Y H A D P N M D P Y R Y G Q P - - - L P G G - K P P Q Q Q P H P Q Q P P Q Q P - - - - - G - - - P G G S -	193
yeast swi1	67	- - - - - - - - - - - A S G V D D F Q N - - - - - F F D - - - - - P - - - - - - - - - - - K P - - - - - F - - - - - - - - -	82
human BAF250a	193	E P Y A G P Q Q N S H D H G F P N H - - - Q Y N S Y Y P N R S A Y P P P A P A Y A L S S - P R - - - - - G G T P G S G A A A A A G S K P P	252
human BAF250b	188	- G R A G P C F D Q H G G Q Q S P G - - - M G M M H S A S A A A A G A P G S M D P L Q N - S H - - - - - E G Y P N S Q C N H Y P G Y S R P P	246
fly Osa	194	- P N R P P Q Q R Y I P G Q P P Q G P T P T L N S L L Q S S N P P P P Q H R Y A N T Y D P Q Q A A A S A A A A A Q Q Q Q A G G P P P P	262
yeast swi1	83	- - - - - - - - - - - D Q N L D - - - S N N - - - - - N N S N S N N N - - - - - - - - - - - D N N N S - - - N - - - - - T V A S S T N - - - - - F T S P	115
human BAF250a	253	P S S S A S A S S S S S S F A Q Q R F G A M G G G G P S A A G G G T P Q P T A T P T L N Q L L T S P S S A R G Y Q G Y P G G D Y S G G - P Q	321
human BAF250b	247	G A G G G G G G G G G - - G G G S G G G G G G G A G A G A G A V A A A A A A A A A A G G G G G G Y G G S S A G Y G V L S S P P R	314
fly Osa	263	G H G P P P P Q H Q P S P Y G G Q Q G G W A P P R P Y S P Q L G P S Q Q Y R T P P T N T S R G Q S P Y P P A H G Q N S G S Y P S S - P Q	331
yeast swi1	116	- - - - - - - - - - - A N V T G G K A A N F I Q - - - - - N Q S P - - - - - S I I D - - - - - - - - - - - - - - - - - - -	124
human BAF250a	322	D G G A G K G P A D M A S Q C W G A A A A A A A A A A S G G A Q Q R S H H A P M S P G S S G G G G Q P L A R T P Q P S S P M D Q M G K M R	391
human BAF250b	315	Q Q G G G - - - M M M G P G G G G A A A S L S K A A A G G S A A G G F Q R F A G Q N Q H P S G A T P T L N Q L L T S P S P - - - M M R S Y G G S Y	379
fly Osa	332	Q Q Q Q Q - - - Q Q Q Q Q Q A G Q Q P G P V P G G P P P G T G Q Q Q P P Q Q N T P P T S Q Y S P Y P - - - Q R Y P T P - - - P G L P A G G S N	394
yeast swi1	125	- - - - - - - - - - - - - - - - - A N V T G G K A A N F I Q - - - - - N Q S P - - - - - S I I D - - - - - - - - - - - - - - - - - - -	153
human BAF250a	392	P Q P Y G G T N P Y S Q Q Q G P P S D P Q Q G H G Y P G Q P Y G S Q T P Q R Y P M T V Q G R A Q S A M G G L S Y T Q Q I P P Y G Q Q G P - S	460
human BAF250b	380	P E Y S S P S A P P P - - - P P S Q P Q S Q A A A A G A A A G G Q Q - - - - - A A A G M G L G K D M G A Q Y A A A S P A W A A A Q Q R S	439
fly Osa	395	H R T A Y S T H Q Y P - - - E P N R P W P G G S S P S P G S G H P L P - - - - - P A S P H H V P P L Q - - - Q Q P P P P P H V S A G G P - P	452
yeast swi1	154	- - - - - T N L N S L S - - - - - - - - - - - P Q A I L A K N - - - - - - - - - - - S I I D - - - - - - - - - - - - - - - - - - -	172
human BAF250a	461	G Y G Q Q G Q T P Y Y N Q Q S P H P Q Q Q Q P P Y S Q Q P P S Q T P H A Q P S Y Q Q Q P Q S Q P P Q L Q S S Q P P Y S Q - - - - - Q P S Q P	525
human BAF250b	440	H P A M S P G T P G P T M G R S Q G S P M D P M V M K R P Q L Y G M G S N P H S Q P Q - - - Q S S P Y P G G S Y G P P G P Q R Y P I G I Q G R T	508
fly Osa	453	P S S S P G H A P S P - - - S P Q P S Q A S P - - - S P H Q E L I G Q N S N D S S S G G - A H S G M G S G P P G T P N P Q Q - - - V M R P T P S	514
yeast swi1	173	- - - - - S S N L P L Q - - - - - - - - - - - - - - - - - A Q Q Q L Y G G N N N -	203
human BAF250a	526	P H Q Q S P A P Y P S Q Q S T T Q Q H P Q S Q P P Y S Q P Q A Q S P Y Q Q Q Q P Q Q P A P S T L S Q Q A A Y P - - - Q P Q S Q Q S Q Q T A Y S	593
human BAF250b	509	P G A M A G M Q Y P Q Q M P P Q Y G Q Q G V S G Y C Q - - - Q G Q Q P Y Y S Q Q P Q - - - P P H L P P Q A Q Y L - - - P S Q S Q Q - - - - - - - -	565
fly Osa	515	P T G S S G S R S - M S P A V A Q N H P I S R P A S N Q S S S G G P M Q Q P P V G A G G P P P M P P H P G M P G G P P Q Q Q - - - - - - -	576
yeast swi1	204	P H F I T N V Q S - - - - - I S Q N S S S S T P N T N S - - - N S T P N -	235
human BAF250a	594	Q Q R F P P P Q E L S Q D S F G S Q A S S A P S M T S S K G Q Q E D M N L S L Q S R P S S L P D L S G S I D D L P M G T E G A L S P G V S T	663
human BAF250b	566	- - R Y Q P Q Q D M S Q E G Y G T R S Q - - - P P L A P G K P N H E D L N L I Q Q E R P S S L P D L S G S I D D L P T G T E A T L S S A V S A	631
fly Osa	577	- - S Q Q Q A S N S A S S A S N S P Q Q T P P P A P - P P N Q - G M N N M A T P P P - - - P P Q G A A G G G Y P M P P H - - - M H G G Y K M	637
yeast swi1	236	- - - F L P - F N N S A S N N G N L T S - - - - - - - - - - - N Q L I S N Y A A S N S M D - - - R S S A S N E F V P N T S D - - - - - N N N	283

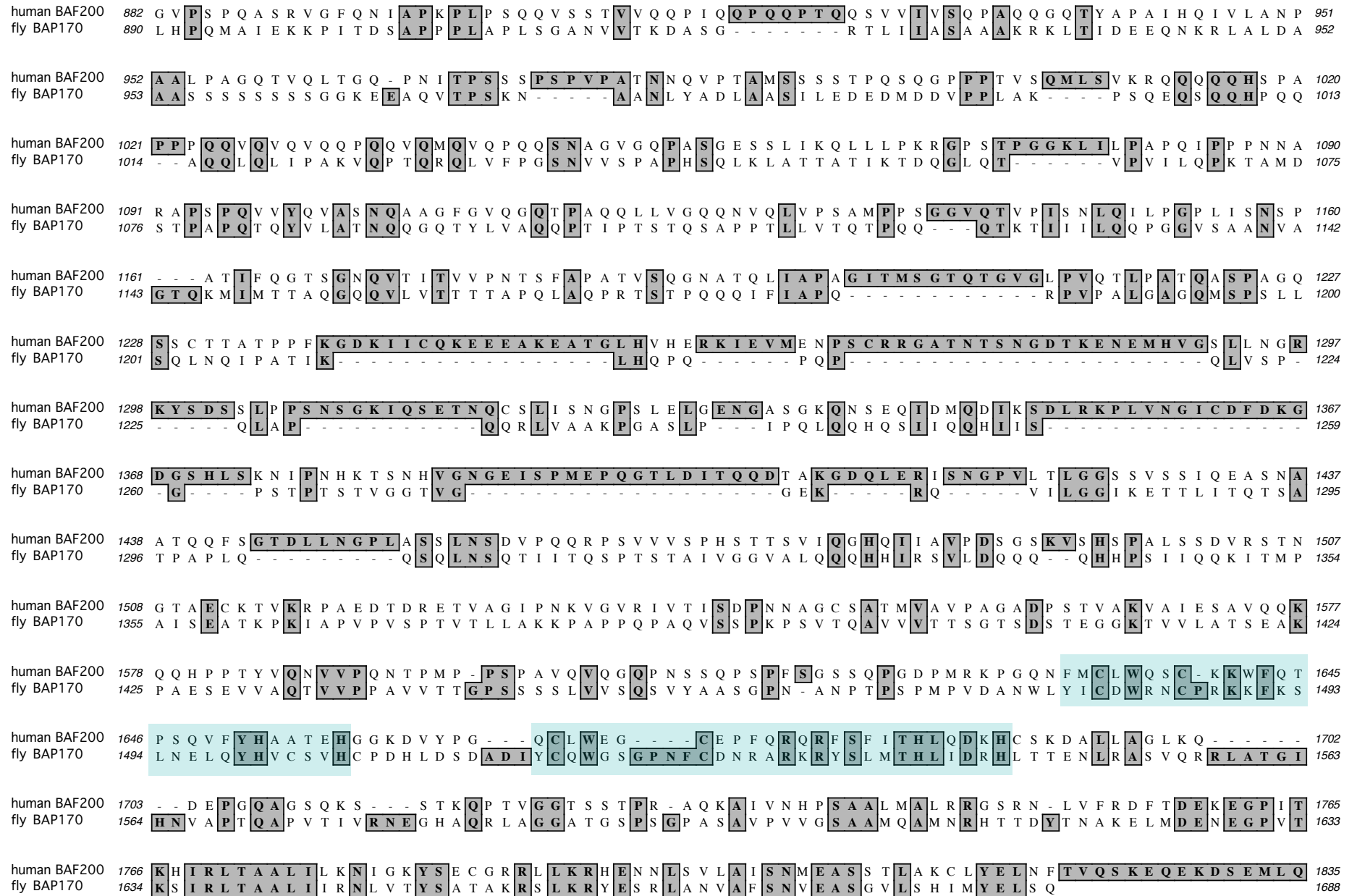






**BAF200**







### ARID Domain

<i>human BAF250a</i>	1008	I T <b>K</b> L Y <b>E</b> L G G G <b>P</b> <b>E</b> <b>R</b> <b>K</b> - - M W V <b>D</b> R Y L A <b>F</b> <b>T</b> <b>E</b> <b>K</b> A M G M T N L <b>P</b> A V <b>G</b> <b>R</b> <b>K</b> <b>P</b> <b>L</b> <b>D</b> <b>L</b> Y R <b>L</b> Y V S <b>V</b> <b>K</b> <b>E</b> <b>I</b> <b>G</b> <b>G</b> L T Q <b>V</b> <b>N</b> <b>K</b> <b>N</b> <b>K</b> <b>K</b> <b>W</b> <b>R</b>	1075
<i>human BAF250b</i>	1039	I T <b>K</b> V Y <b>E</b> L G N E <b>P</b> <b>E</b> <b>R</b> <b>K</b> - - L W V <b>D</b> R Y L T <b>F</b> <b>M</b> <b>E</b> <b>E</b> <b>R</b> <b>G</b> S <b>P</b> V S S L <b>P</b> A V <b>G</b> <b>K</b> <b>K</b> <b>P</b> <b>L</b> <b>D</b> <b>L</b> F R <b>L</b> Y V C <b>V</b> <b>K</b> <b>E</b> <b>I</b> <b>G</b> <b>G</b> L A Q <b>V</b> <b>N</b> <b>K</b> <b>N</b> <b>K</b> <b>K</b> <b>W</b> <b>R</b>	1106
<i>human BAF200</i>	2	A N S T G K A P P D E R <b>R</b> <b>K</b> G L A <b>F</b> <b>L</b> <b>D</b> <b>E</b> <b>L</b> R Q <b>F</b> <b>H</b> <b>H</b> S <b>R</b> <b>G</b> S <b>P</b> F K K I <b>P</b> A V <b>G</b> <b>G</b> <b>K</b> <b>E</b> <b>L</b> <b>D</b> <b>L</b> H G <b>L</b> Y T R V <b>T</b> <b>T</b> <b>L</b> <b>G</b> <b>G</b> F A K <b>V</b> S <b>E</b> <b>K</b> <b>N</b> <b>Q</b> <b>W</b> <b>G</b>	71
<i>fly Osa</i>	991	L C <b>K</b> L Y <b>E</b> M D D N <b>P</b> <b>D</b> <b>R</b> R - - G W L <b>D</b> <b>K</b> <b>L</b> R A <b>F</b> <b>M</b> <b>E</b> <b>R</b> <b>R</b> T <b>P</b> I T A C <b>P</b> <b>T</b> <b>I</b> S K Q <b>P</b> <b>L</b> <b>D</b> <b>L</b> Y R <b>L</b> Y I Y <b>V</b> <b>K</b> <b>E</b> <b>R</b> <b>G</b> <b>G</b> F V E <b>V</b> <b>T</b> <b>K</b> S K T <b>W</b> <b>K</b>	1056
<i>fly BAP170</i>	54	M P E <b>K</b> V E <b>E</b> M P P S <b>P</b> P E E - - <b>F</b> W R D <b>L</b> Q Q <b>F</b> <b>H</b> <b>E</b> <b>R</b> <b>R</b> G T <b>P</b> L T Q P A R <b>I</b> S G <b>K</b> <b>H</b> <b>V</b> <b>D</b> <b>L</b> Y K <b>L</b> Y N E <b>V</b> <b>T</b> <b>E</b> <b>R</b> <b>G</b> <b>G</b> F N K <b>V</b> <b>T</b> <b>M</b> R D E <b>W</b> <b>D</b>	121
<i>yeast swi1</i>	411	- - - - - L <b>F</b> <b>M</b> <b>K</b> <b>S</b> <b>L</b> I E N C <b>K</b> <b>K</b> <b>R</b> <b>N</b> <b>M</b> <b>P</b> L Q S I <b>P</b> <b>E</b> <b>I</b> <b>G</b> <b>N</b> R <b>K</b> I <b>N</b> <b>L</b> F Y <b>L</b> Y M L <b>V</b> Q K <b>F</b> <b>G</b> <b>G</b> A D Q <b>V</b> <b>T</b> <b>R</b> T Q Q <b>W</b> <b>S</b>	463
<i>yeast Rsc9</i>	200	T G D N K W Q L Y E G N A - - - - <b>T</b> <b>F</b> <b>N</b> <b>E</b> <b>L</b> T H Y T L D L M E A I S S Y - - <b>I</b> A P A M <b>K</b> <b>D</b> D H Y F Q T L <b>V</b> S - - - - I L N Y <b>T</b> <b>K</b> - D R Y M	258
<i>human BAF250a</i>	1076	<b>E</b> <b>L</b> <b>A</b> T N <b>L</b> N V G T <b>S</b> - S <b>S</b> <b>A</b> <b>A</b> S S <b>L</b> <b>K</b> <b>K</b> <b>Q</b> <b>Y</b> I Q C <b>L</b> Y A F <b>E</b> C K I	1107
<i>human BAF250b</i>	1107	<b>E</b> <b>L</b> <b>A</b> T N <b>L</b> N V G T <b>S</b> - S <b>S</b> <b>A</b> <b>A</b> S S <b>L</b> <b>K</b> <b>K</b> <b>Q</b> <b>Y</b> I Q Y <b>L</b> F A F <b>E</b> C K I	1138
<i>human BAF200</i>	72	<b>E</b> I V E E F N F P R <b>S</b> - C <b>S</b> <b>N</b> <b>A</b> A F A L <b>K</b> <b>Q</b> <b>Y</b> Y L R Y <b>L</b> E K Y E K V	103
<i>fly Osa</i>	1057	D I <b>A</b> G L <b>L</b> G I G A <b>S</b> - S <b>S</b> <b>A</b> <b>A</b> Y T <b>L</b> R <b>K</b> <b>H</b> <b>Y</b> T K N <b>L</b> L T F <b>E</b> C H F	1088
<i>fly BAP170</i>	122	<b>E</b> V Y S A M E T L R E R C V N G T A S I <b>K</b> H I Y R R Y <b>L</b> D K Y E R L	154
<i>yeast swi1</i>	464	M V <b>A</b> Q R <b>L</b> Q I S D Y - - - Q Q L E S - I <b>Y</b> F R I <b>L</b> L P Y <b>E</b> R H M	490
<i>yeast Rsc9</i>	259	V I S - - - - I L R <b>S</b> - - - - - <b>L</b> S R L L V R S K A N E <b>E</b> S A A	281