

Supporting data 2

A

R17H

| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | |
|--------------|---------------------------------|----------|---------|---------|--------|-------|-------|-----------------|
| | | | | | | | | |
| myh6 | MTDAQMA | DFGAAQYL | RKSEKER | LEAQTR | PFDP | | | Class II |
| myh6_c/2mys | SPDAEMA | AFGEA | APYLR | RKSEKER | TEAQN | KPF | FD | |
| myh15 | LIKMDLS | DLG | AAAFIR | RS | EAE | LLLL | QAT | ALD |
| myh7b | TAMMDV | S | ELGES | SARYLR | QGYQ | EMT | KVHTI | PWD |
| myh7 | MGDSEMA | VF | GAAAPYL | RKSEKER | LEAQTR | PFDP | | |
| myh13 | SSDAEMA | IF | GEAAPYL | RKPEKER | IEAQN | RPF | FD | |
| myh3 | SSDTEME | VF | GIAAPFL | RKSEKER | IEAQN | QPF | FD | |
| myh8 | SSDAEMA | VF | GEAAPYL | RKSEKER | IEAQN | KPF | FD | |
| myh4 | SSDSEMA | IF | GEAAPFL | RKSEKER | IEAQN | KPF | FD | |
| myh1 | SSDSEMA | IF | GEAAPFL | RKSERER | IEAQN | KPF | FD | |
| myh2 | SSDSELA | VF | GEAAPFL | RKSERER | IEAQN | RPF | FD | |
| myh14 | VPEAAQ | PF | LFT | PRG | PSA | GGG | PGSGT | S |
| myh11 | -MAQK | QLS | DD | DKF | LV | DKNF | INS | EVAQADWA |
| myh11_c/1br2 | --MSQ | PLS | DD | DKF | LV | DKNF | VNN | PLAQADWS |
| myh10 | -MAQT | GLE | DD | PER | LV | DRAVI | YN | PATQADWT |
| myh9 | ----- | MAQQA | AD | KYLV | VDKNF | INN | PLA | QADWA |
| myo5c | ----- | MAVAE | LYT | QYNRV | WLP | DP | BE | VWVK Class V |
| myo5b | ----- | MSVGE | LYS | QCTRV | WLP | DP | DE | VWVR |
| myo5a_c/1oe9 | ----- | MAASE | LYT | KYARV | WLP | DP | BE | VWVK |
| myo5a | ----- | MAASE | LYT | KFARV | WLP | DP | BE | VWVK |
| myo9a | HTLRIY | PGA | IS | EGT | IY | CEI | PARKN | STA |
| myo9b | HLHYT | PQL | ST | TES | QA | SCR | V | TATK |
| myo6 | ----- | MEDG | KP | VWA | PH | --- | PTD | Class VI |
| myo6_p/2bkh | ----- | MEDG | KP | VWA | PH | --- | PTD | |
| myo7a | ----- | MVIL | Q | GDH | VW | MDL | R | LGQEF Class VII |
| myo7b | ----- | MSG | ER | LG | DH | VW | LE | PPSTHKT |
| myo10 | ----- | MDNF | HT | EG | TR | VW | LR | ----- Class X |

A1004S

C

| | 995 | 1000 | 1005 | 1010 | |
|--------------|-----------------|-------|-------|-------|----------|
| | | | | | |
| myh6 | TKEKKAL | QEAHQ | QALDD | | Class II |
| myh6_c/2mys | TKEKKAL | QEAHQ | QTLDD | | |
| myh15 | NRAAKV | VQEA | AHQ | QTLDD | |
| myh7b | TKEKKAL | QEAHQ | QALGD | | |
| myh7 | TKEKKAL | QEAHQ | QALDD | | |
| myh13 | TKEKKS | LQEA | AHQ | QTLDD | |
| myh3 | TREKKAL | QEAHQ | QALDD | | |
| myh8 | SKEKKAL | QEAHQ | QTLDD | | |
| myh4 | TKEKKAL | QEAHQ | QTLDD | | |
| myh1 | TKEKKAL | QEAHQ | QTLDD | | |
| myh2 | TKEKKAL | QEAHQ | QTLDD | | |
| myh14 | SKERKLE | EDR | LA | EFSSQ | |
| myh11 | SKERKLE | ER | IS | DLTTN | |
| myh11_c/1br2 | TKEK | KL | LE | ER | VS |
| myh10 | IKEK | KL | ME | DR | LA |
| myh9 | AKEK | KL | LE | DR | LA |

B

C539R K543R

| | 530 | 535 | 540 | 545 | 550 | 555 | |
|--------------|--------------------------------|-------|-----|-----|-----|-----|-----|
| | -- | | | | | | |
| myh6 | --GIMS | ILEEE | CM | --- | FPK | AT | DMT |
| myh6_c/2mys | --GIFS | ILEEE | CM | --- | FPK | AT | DTS |
| myh15 | --GILS | ILEEE | CM | --- | FPK | AT | DL |
| myh7b | --GILS | ILEEE | CM | --- | FPK | AS | DA |
| myh7 | --GIMS | ILEEE | CM | --- | FPK | AT | DM |
| myh13 | --GIFS | ILEEE | CM | --- | FPK | AT | DTS |
| myh3 | --GIFS | ILEEE | CM | --- | FPK | AT | DTS |
| myh8 | --GIFS | ILEEE | CM | --- | FPK | AT | DTS |
| myh4 | --GIFS | ILEEE | CM | --- | FPK | AT | DTS |
| myh1 | --GIFS | ILEEE | CM | --- | FPK | AT | DTS |
| myh2 | --GIFS | ILEEE | CM | --- | FPK | AT | DTS |
| myh14 | PPGL | L | L | L | D | E | E |
| myh11 | PPGV | L | L | L | D | E | E |
| myh11_c/1br2 | PPG | V | L | L | L | D | E |
| myh10 | PPGV | L | L | L | D | E | E |
| myh9 | PPG | I | L | L | D | E | E |
| myo1e | PPG | I | M | S | V | L | D |
| myo1f | PPG | I | M | S | V | L | D |
| myo1d | --GI | I | A | I | L | D | D |
| myo1g | --GI | L | A | V | L | D | E |
| myo1c | --GI | I | S | I | L | D | E |
| myo1h | --GI | I | S | I | L | D | E |
| myo1a | --GI | L | A | M | L | D | E |
| myo1b | --GI | L | A | M | L | D | E |
| myo5c | --GILE | L | L | D | E | E | C |
| myo5b | --GILD | L | L | D | E | E | C |
| myo5a_c/1oe9 | --G | V | L | D | L | L | D |
| myo5a | --GILD | L | L | D | E | E | C |
| myo15a | --GIL | R | I | L | D | D | C |
| myo9a | --GLL | H | L | L | D | E | E |
| myo9b | --GLF | Y | L | L | D | E | E |
| myo6 | --GILD | I | L | D | E | E | N |
| myo6_p/2bkh | --GILD | I | L | D | E | E | N |
| myo7a | --NI | I | S | L | D | E | E |
| myo7b | --SI | I | S | L | L | D | E |
| myo10 | --GLL | L | A | L | I | N | E |
| myo3a | --G | L | L | S | L | L | D |
| myo3b | --G | L | L | A | L | L | D |
| myo18a | ARGL | L | W | L | L | E | E |
| myo18b | ARGL | F | W | L | D | E | E |