

ubx

2R homeobox

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|-------|--|----|
| Dper | MNSYFEQASGFYGHHPHQATGMAMGSGGHHDQTASAAAAAYRGFPLSLGMS | 50 |
| Dpse | MNSYFEQASGFYGHHPHQATGMAMGSGGHHDQTASAAAAAYRGFPLSLGMS | 50 |
| DmelC | MNSYFEQASGFYGHHPHQATGMAMGSGGHHDQTASAAAAAYRGFPLSLGMS | 50 |
| DmelF | MNSYFEQASGFYGHHPHQATGMAMGSGGHHDQTASAAAAAYRGFPLSLGMS | 50 |
| DmelA | MNSYFEQASGFYGHHPHQATGMAMGSGGHHDQTASAAAAAYRGFPLSLGMS | 50 |
| DmelB | MNSYFEQASGFYGHHPHQATGMAMGSGGHHDQTASAAAAAYRGFPLSLGMS | 50 |
| DmelD | MNSYFEQASGFYGHHPHQATGMAMGSGGHHDQTASAAAAAYRGFPLSLGMS | 50 |
| DmelE | MNSYFEQASGFYGHHPHQATGMAMGSGGHHDQTASAAAAAYRGFPLSLGMS | 50 |
| Dere | MNSYFEQASGFYGHHPHQATGMAMGSGGHHDQTASAAAAAYRGFPLSLGMS | 50 |
| Dyak | MNSYFEQASGFYGHHPHQATGMAMGSGGHHDQTASAAAAAYRGFPLSLGMS | 50 |
| Dana | MNSYFEQASGFYGHHPHQATGMAMGSGGHHDQSGASAAAAAYRGFPLSLGMS | 50 |
| Dsim | MNSYFEQASGFYGHHPHQATGMAMGSGGHHDQTASAAAAAYRGFPLSLGMS | 50 |

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|-------|---|-----|
| Dper | PYANHHLQRTTQDSPYDASI TAACNKI YGDGASAYKQDCLNI KADAVNGY | 100 |
| Dpse | PYANHHLQRTTQDSPYDASI TAACNKI YGDGASAYKQDCLNI KADAVNGY | 100 |
| DmelC | PYANHHLQRTTQDSPYDASI TAACNKI YGDGAGAYKQDCLNI KADAVNGY | 100 |
| DmelF | PYANHHLQRTTQDSPYDASI TAACNKI YGDGAGAYKQDCLNI KADAVNGY | 100 |
| DmelA | PYANHHLQRTTQDSPYDASI TAACNKI YGDGAGAYKQDCLNI KADAVNGY | 100 |
| DmelB | PYANHHLQRTTQDSPYDASI TAACNKI YGDGAGAYKQDCLNI KADAVNGY | 100 |
| DmelD | PYANHHLQRTTQDSPYDASI TAACNKI YGDGAGAYKQDCLNI KADAVNGY | 100 |
| DmelE | PYANHHLQRTTQDSPYDASI TAACNKI YGDGAGAYKQDCLNI KADAVNGY | 100 |
| Dere | PYANHHLQRTTQDSPYDASI TAACNKI YGDGAGAYKQDCLNI KADAVNGY | 100 |
| Dyak | PYANHHLQRTTQDSPYDASI TAACNKI YGDGAGAYKQDCLNI KADAVNGY | 100 |
| Dana | PYANHHLQRTTQDSPYDASI TAACNKI YGDGAGAYKQDCLNI KADAVNGY | 99 |
| Dsim | PYANHHLQRTTQDSPYDASI TAACNKI YGDGAGAYKQDCLNI KADAVNGY | 100 |

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| Dper | KDI | WNT | GG | S | NGGG | T | GGGGGGGGGG | G | A | G | GN | A | S | NG | S | N | A | GN | A | AN | G | - | - | Q | NN | A | A | GG | 148 | | | | | | | | | | |
| Dpse | KDI | WNT | GG | S | NGGG | T | GGGGGGGG | - | - | G | A | G | GN | A | S | NG | S | N | A | GN | A | AN | G | - | - | Q | NN | A | A | GG | 146 | | | | | | | | |
| DmelC | KDI | WNT | GG | S | NGGG | G | GGGGGGGGGG | G | A | G | T | GG | A | GN | AN | G | GN | A | AN | ANG | Q | NN | P | A | GG | 150 | | | | | | | | | | | | | |
| DmelF | KDI | WNT | GG | S | NGGG | G | GGGGGGGGGG | G | A | G | T | GG | A | GN | AN | G | GN | A | AN | ANG | Q | NN | P | A | GG | 150 | | | | | | | | | | | | | |
| DmelA | KDI | WNT | GG | S | NGGG | G | GGGGGGGGGG | G | A | G | T | GG | A | GN | AN | G | GN | A | AN | ANG | Q | NN | P | A | GG | 150 | | | | | | | | | | | | | |
| DmelB | KDI | WNT | GG | S | NGGG | G | GGGGGGGGGG | G | A | G | T | GG | A | GN | AN | G | GN | A | AN | ANG | Q | NN | P | A | GG | 150 | | | | | | | | | | | | | |
| DmelD | KDI | WNT | GG | S | NGGG | G | GGGGGGGGGG | G | A | G | T | GG | A | GN | AN | G | GN | A | AN | ANG | Q | NN | P | A | GG | 150 | | | | | | | | | | | | | |
| DmelE | KDI | WNT | GG | S | NGGG | G | GGGGGGGGGG | G | A | G | T | GG | A | GN | AN | G | GN | A | AN | ANG | Q | NN | P | A | GG | 150 | | | | | | | | | | | | | |
| Dere | KDI | WNT | GG | S | NGGG | G | GGGGGGGGGG | G | A | G | T | GG | A | GN | AN | G | GN | A | AN | ANG | Q | NN | P | A | GG | 150 | | | | | | | | | | | | | |
| Dyak | KDI | WNT | GG | S | NGGG | G | GGGGGGGGGG | G | A | G | T | GG | A | GN | AN | G | GN | A | P | N | ANG | Q | NN | P | A | GG | 150 | | | | | | | | | | | | |
| Dana | KDI | WNT | GG | S | NGGG | G | GGGGGGGGGG | G | T | G | A | A | G | NG | - | AN | G | G | N | T | AN | ANG | Q | NN | P | A | GG | 148 | | | | | | | | | | | |
| Dsim | KDI | WNT | GG | S | NGGG | - | - | - | - | - | - | G | G | G | A | V | A | A | E | R | A | E | Q | V | E | P | A | M | P | M | A | V | M | R | P | M | Q | T | 142 |

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|-------|---|-------------------------------|-----|
| Dper | MPVRPSACTPDSRVGGYLDTSGGSPVSHRGGSAAGGNVS | AGGGGQSGQSGA | 198 |
| Dpse | MPVRPSACTPDSRVGGYLDTSGGSPVSHRGGSAAGGNVS | AGGGGQSGQSGA | 196 |
| DmelC | MPVRPSACTPDSRVGGYLDTSGGSPVSHRGGSAAGGNVS | VS GGNGNAG- - G | 198 |
| DmelF | MPVRPSACTPDSRVGGYLDTSGGSPVSHRGGSAAGGNVS | VS GGNGNAG- - G | 198 |
| DmelA | MPVRPSACTPDSRVGGYLDTSGGSPVSHRGGSAAGGNVS | VS GGNGNAG- - G | 198 |
| DmelB | MPVRPSACTPDSRVGGYLDTSGGSPVSHRGGSAAGGNVS | VS GGNGNAG- - G | 198 |
| DmelD | MPVRPSACTPDSRVGGYLDTSGGSPVSHRGGSAAGGNVS | VS GGNGNAG- - G | 198 |
| DmelE | MPVRPSACTPDSRVGGYLDTSGGSPVSHRGGSAAGGNVS | VS GGNGNAG- - G | 198 |
| Dere | MPVRPSACTPDSRVGGYLDTSGGSPVSHRGGSAAGGNVS | VS GGNGNAG- - G | 198 |
| Dyak | MPVRPSACTPDSRVGGYLDTSGGSPVSHRGGSAAGGNVS | VS GGNGNAG- - G | 198 |
| Dana | MPVRPSACTPDSRVGGYLDTSGGSPVSHRGGSAAGGNVS | VS GGAAGGGNGG | 198 |
| Dsim | DRTIRRAACPFPSGRLLRRAAVPF | SHRGGSAAGGNVS VS GGNGNAG- - G | 190 |

2R homeobox

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|-------|---|-----|
| Dper | MAI AGKI RSDLTQYGGI STD MGKRYSESLAG- - - - - SLLPDWLGTN | 289 |
| Dpse | MAI AGKI RSDLTQYGGI STD MGKRYSESLAG- - - - - SLLPDWLGTN | 287 |
| DmelC | MAI AGECPEDPTKSKRYSESLAG- - - - - SLLPDWLGTN | 275 |
| DmelF | MAI AGECPEDPTKS- - - - - SLLPDWLGTN | 258 |
| DmelA | MAI AGECPEDPTKSKI RSDLTQYGGI STD MGKRYSESLAGSLLPDWLGTN | 292 |
| DmelB | MAI AG- - - - - SLLPDWLGTN | 249 |
| DmelD | MAI AGKRYSESLAG- - - - - SLLPDWLGTN | 266 |
| DmelE | MAI AGKI RSDLTQYGGI STD MGKRYSESLAG- - - - - SLLPDWLGTN | 283 |
| Dere | MAI AGKI RSDLTQYGGI STD MGKRYSESLAG- - - - - SLLPDWLGTN | 284 |
| Dyak | MAI AGKI RSDLTQYGGI STD MGKRYSESLAG- - - - - SLLPDWLGTN | 284 |
| Dana | MAI AGECPEDPAKSKI RSDLTQYGGI STD MGKRYSESLAGSLLPDWLGTN | 293 |
| Dsim | MAI AG- - - - - SLLPDWLGTN | 241 |

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|-------|---|-----|
| Dper | GLRRRGRQTYTRYQTLELEKEFHNTNHYLTRRRRIEMAHALCLTERQIKIW | 339 |
| Dpse | GLRRRGRQTYTRYQTLELEKEFHNTNHYLTRRRRIEMAHALCLTERQIKIW | 337 |
| DmelC | GLRRRGRQTYTRYQTLELEKEFHNTNHYLTRRRRIEMAHALCLTERQIKIW | 325 |
| DmelF | GLRRRGRQTYTRYQTLELEKEFHNTNHYLTRRRRIEMAHALCLTERQIKIW | 308 |
| DmelA | GLRRRGRQTYTRYQTLELEKEFHNTNHYLTRRRRIEMAHALCLTERQIKIW | 342 |
| DmelB | GLRRRGRQTYTRYQTLELEKEFHNTNHYLTRRRRIEMAHALCLTERQIKIW | 299 |
| DmelD | GLRRRGRQTYTRYQTLELEKEFHNTNHYLTRRRRIEMAHALCLTERQIKIW | 316 |
| DmelE | GLRRRGRQTYTRYQTLELEKEFHNTNHYLTRRRRIEMAHALCLTERQIKIW | 333 |
| Dere | GLRRRGRQTYTRYQTLELEKEFHNTNHYLTRRRRIEMAHALCLTERQIKIW | 334 |
| Dyak | GLRRRGRQTYTRYQTLELEKEFHNTNHYLTRRRRIEMAHALCLTERQIKIW | 334 |
| Dana | GLRRRGRQTYTRYQTLELEKEFHNTNHYLTRRRRIEMAHALCLTERQIKIW | 343 |
| Dsim | GLRRRGRQTYTRYQTLELEKEFHNTNHYLTRRRRIEMAHALCLTERQIKIW | 291 |

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|-------|--|-----|
| Dper | FQNRMMKLKKEIQAIKELNEQEKQAQAQKAAAAAAAAAAAVQGGHLDQ | 386 |
| Dpse | FQNRMMKLKKEIQAIKELNEQEKQAQAQKAAAAAAAAAAAVQGGHLDQ | 384 |
| DmelC | FQNRMMKLKKEIQAIKELNEQEKQAQAQKAAAAAAAAAAAVQGGHLDQ | 372 |
| DmelF | FQNRMMKLKKEIQAIKELNEQEKQAQAQKAAAAAAAAAAAVQGGHLDQ | 355 |
| DmelA | FQNRMMKLKKEIQAIKELNEQEKQAQAQKAAAAAAAAAAAVQGGHLDQ | 389 |
| DmelB | FQNRMMKLKKEIQAIKELNEQEKQAQAQKAAAAAAAAAAAVQGGHLDQ | 346 |
| DmelD | FQNRMMKLKKEIQAIKELNEQEKQAQAQKAAAAAAAAAAAVQGGHLDQ | 363 |
| DmelE | FQNRMMKLKKEIQAIKELNEQEKQAQAQKAAAAAAAAAAAVQGGHLDQ | 380 |
| Dere | FQNRMMKLKKEIQAIKELNEQEKQAQAQKAAAAAAAAAAAVQGGHLDQ | 381 |
| Dyak | FQNRMMKLKKEIQAIKELNEQEKQAQAQKAAAAAAAAAAAVQGGHLDQ | 381 |
| Dana | FQNRMMKLKKEIQAIKELNEQEKQAQAQKAAAAAAAAAAAVQGGHLD | 389 |
| Dsim | FQNRMMKLKKEIQAIKELNEQEKQAQAQKAAAAAAAAAAAVQGGHLDQ | 338 |