

A

PoLDH_AY486058	GTTCTCGTTGGTCAGGAATGATAGGAGGTGTTATGGCCACCTTAATTGTTTCAGAAAAATT
Poc_LDH	GTTCTCGTTGGTCAGGAATGATAGGAGGTGTTATGGCCACCTTAATTGTTTCAGAAAAATT
Pow_LDH	GTTCTCGTTGGTCAGGAATGATAGGAGGTGTTATGGCCACCTTAATTGTTTCAGAAAAATT

PoLDH_AY486058	TAGGCGATGTTGTTATGTTTCGATATTGTGAAGAACATGCCTCTCGGAAAAGCACTCGACA
Poc_LDH	TAGGCGATGTTGTTATGTTTCGATATTGTGAAGAACATGCCTCTCGGAAAAGCACTCGACA
Pow_LDH	TAGGCGATGTTGTTATGTTTCGATATTGTGAAGAACATGCCTCTCTGGAAAAGCACTTGACA
	***** ***** *
PoLDH_AY486058	CATCACATACAAATGTAATGGCATACTCGAATTGTCAAGTTACGGGATCGAACACATATG
Poc_LDH	CATCACATACAAATGTAATGGCATACTCGAATTGTCAAGTTACGGGATCGAACACATATG
Pow_LDH	CATCACATACGAATGTAATGGCATACTCGAATTGTCAAGTTACGGGATCGAATACATATG
	***** ***** *
PoLDH_AY486058	AGGACTTGAAAGGTGCTGATGTAGTGATAGTAACTGCAGGCTTTACGAAAGCTCCTGGAA
Poc_LDH	AGGACTTGAAAGGTGCTGATGTAGTGATAGTAACTGCAGGCTTTACGAAAGCTCCTGGAA
Pow_LDH	AGGACTTGAAAGGTGCTGATGTAGTGATAGTAACAAGCAGGTTTACGAAAGCTCCAGGAA
	***** ***** *
PoLDH_AY486058	AAAGTGACAAAGAATGGAACAGGGATGACTTATTACCATTGAATAACAAAATTATGATTG
Poc_LDH	AAAGTGACAAAGAATGGAACAGGGATGACTTATTACCATTGAATAACAAAATTATGATTG
Pow_LDH	AAAGTGACAAAGAATGGAACAGGGATGACTTATTACCACTGAATAACAAAATTATGATCG
	***** ***** *
PoLDH_AY486058	AAATAGGTGGACATATAAAGAATTATTGCCCAAACGCATTTATTATTGTTGTAACTAACC
Poc_LDH	AAATAGGTGGACATATAAAGAATTATTGCCCAAACGCATTTATTATTGTTGTAACTAACC
Pow_LDH	AAATAGGTGGACATATTAAAGAATTATTGCCCAAACGCATTTATTATTGTTGTAACTAACC
	***** ***** *
PoLDH_AY486058	CAGCGGATGTTATGGTTCAATTATTACATCAACATTCAGGTGTCTCAAAAAATAAAATTG
Poc_LDH	CAGTGGATGTTATGGTTCAATTATTACATCAACATTCAGGTGTCTCAAAAAATAAAATTG
Pow_LDH	CAGTGGATGTTATGGTTCAATTACTACATCAACATTCAGGTGTCTCAAAAAATAAAATTG
	*** ***** ***** *
PoLDH_AY486058	TTGGTTTAGGAGGTGTTCTTGATACATCTAGACTGAAATATTACATTTCTCAAAAAATTAA
Poc_LDH	TTGGTTTAGGAGGTGTTCTTGATACATCTAGACTGAAATATTACATTTCTCAAAAAATTAA
Pow_LDH	TTGGTTTAGGAGGTGTTCTTGATACATCTAGATTGAAATATTACATTTCTCAAAAAATTAA
	***** ***** *
PoLDH_AY486058	ATGTTTGTCCAAGGGATGTAAATGCACATATTGTTGGAGCACATGGCAATAAAATGGTTG
Poc_LDH	ATGTTTGTCCAAGGGATGTAAATGCACATATTGTTGGAGCACATGGCAATAAAATGGTTG
Pow_LDH	AGGTATGCCCAAGGGATGTAAATGCACATATTGTTGGAGCACATGGCAATAAAATGGTTG
	* ** * ***** *
PoLDH_AY486058	TGTTGAAGAGGTACATAACTGTAGGTGGTATTCCCTTACAAGAATTTATTAACAATAAAAA
Poc_LDH	TGTTGAAGAGGTACATAACTGTAGGTGGTATTCCCTTACAAGAATTTATTAACAATAAAAA
Pow_LDH	TGTTGAAGAGGTACATAACTGTAGGTGGTATTCCCTTACAAGAATTTGTTAACAATAAAAA
	***** ***** *
PoLDH_AY486058	AAATTACAGATGCAGAACTAGATGCCATTTTTGACAGAACTGTTAACAACACTGCTTTGGAGA
Poc_LDH	AAATTACAGATGCAGAACTAGATGCCATTTTTGACAGAACTGTTAACAACACTGCTTTGGAGA
Pow_LDH	AAATTACAGATGCAGAACTAGATGCTATTTTTGACAGAACTGTTAACAACACTGCTTTGGAAA
	***** ***** *
PoLDH_AY486058	TCGTTAATTACCATGCCTCTCCATATGTAGCCCCTGCTGCTGCTATTATCGAAATGGCCG
Poc_LDH	TTGTTAATTACCATGCCTCTCCATATGTAGCCCCTGCTGCTGCTATTATCGAAATGGCCG

Po_{LDH} TTTGTTAATTACCATGCCTCTCCATATGTAGCCCCTGCTGCTGCTATTATCGAAATGGCCG
 * ****

Po_{LDH}_AY486058 AATCATATCTCAAAGATTTGAAAAAGGTTTTGATATGCTCCACCTTGTGGAAGGACAAT
 Po_c_LDH AATCATATCTCAAAGATTTGAAAAAGGTTTTGATATGCTCCACCTTGTGGAAGGACAAT
 Po_w_LDH AATCATATCTTAAAGATTTGAAAAAGGTTTTGATATGCTCCACCTTGTGGAAGGACAAT
 * ****

Po_{LDH}_AY486058 ACGGACACACAGGCGTCTTCGGAGGAACGCCTCTCGTCTTGGGATGCAATGGTGTGAGC
 Po_c_LDH ACGGACACACAGGCGTCTTCGGAGGAACGCCTCTCGTCTTGGGATGCAATGGTGTGAGC
 Po_w_LDH ACGGACACACTGGCGTATTTCGGAGGAACCTCCTCTCGTCTTGGGATGCAATGGTGTGAGC
 * ****

Po_{LDH}_AY486058 AAGTCTTCGAATTGCAGCTAAACGCAGAAGAAAAGAAGATGTTTGATGATGCCATT
 Po_w_LDH AAGTCTTCGAATTGCAGCTAAACGCAGAAGAAAAGAAGATGTTTGATGATGCCA--
 Po_w_LDH AAGTCTTCGAATTGCAGCTAAACGCAGAAGAAAAGAAGATGTTTGATGATGCCA--
 * ****

B

Po_{LDH}_AY486058 1 -----SRWSGMIGGVMATLIVQKNLGDVVMFDIVKNMPLGKALDTSHTNVMAYSNCQ
 Po_c_LDH 1 -----RSRWSGMIGGVMATLIVQKNLGDVVMFDIVKNMPLGKALDTSHTNVMAYSNCQ
 Po_w_LDH 1 -----SRWSGMIGGVMATLIVQKNLGDVVMFDIVKNMPLGKALDTSHTNVMAYSNCQ
 P_fLDH 1 MAPKAKIVLVGSGMIGGVMATLIVQKNLGDVVMFDIVKNMPLGKALDTSHTNVMAYSNCQ
 consensus 1 ...*****.*****.*****.

Po_{LDH}_AY486058 53 VTGSNTYEDLKGADVIVTAGFTKAPGKSDKEWNRDDLPLNNKIMIEIGGHIKNYCPNA
 Po_c_LDH 54 VTGSNTYEDLKGADVIVTAGFTKAPGKSDKEWNRDDLPLNNKIMIEIGGHIKNYCPNA
 Po_w_LDH 53 VTGSNTYEDLKGADVIVTAGFTKAPGKSDKEWNRDDLPLNNKIMIEIGGHIKNYCPNA
 P_fLDH 61 VSGSNTYDDLKGADVIVTAGFTKAPGKSDKEWNRDDLPLNNKIMIEIGGHIKNYCPNA
 consensus 61 *.*****.***.*****.*****.*****.

Po_{LDH}_AY486058 113 FIIIVVTNPADVMMVQLLHQHSGVSKNKIVGLGGVLDTSRLKYYISQKLNVCPRDVNAHIVG
 Po_c_LDH 114 FIIIVVTNPVDMMVQLLHQHSGVSKNKIVGLGGVLDTSRLKYYISQKLNVCPRDVNAHIVG
 Po_w_LDH 113 FIIIVVTNPVDMMVQLLHQHSGVSKNKIVGLGGVLDTSRLKYYISQKLNVCPRDVNAHIVG
 P_fLDH 121 FIIIVVTNPVDMMVQLLHQHSGVSKNKIVGLGGVLDTSRLKYYISQKLNVCPRDVNAHIVG
 consensus 121 *****.*****.*****.*****.*****.

S143P N168K

Po_{LDH}_AY486058 173 AHGNKMOVVLKRYITVGGIPLQEFINNKKITDAELDAIFDRTVNTALEIVNYHASPYVAPA
 Po_c_LDH 174 AHGNKMOVVLKRYITVGGIPLQEFINNKKITDAELDAIFDRTVNTALEIVNYHASPYVAPA
 Po_w_LDH 173 AHGNKMOVVLKRYITVGGIPLQEFINNKKITDAELDAIFDRTVNTALEIVNYHASPYVAPA
 P_fLDH 181 AHGNKMOVVLKRYITVGGIPLQEFINNKKITDAELDAIFDRTVNTALEIVNYHASPYVAPA
 consensus 181 *****.*****.*****.*****.*****.

I204V

Po_{LDH}_AY486058 233 AAIIEMAESYLKDLKKVLICSTLLEGQYGHTGVFGGTPVLVLCNGVEQVFELQLNAEKK
 Po_c_LDH 234 AAIIEMAESYLKDLKKVLICSTLLEGQYGHTGVFGGTPVLVLCNGVEQVFELQLNAEKK
 Po_w_LDH 233 AAIIEMAESYLKDLKKVLICSTLLEGQYGHTGVFGGTPVLVLCNGVEQVFELQLNAEKK
 P_fLDH 241 AAIIEMAESYLKDLKKVLICSTLLEGQYGHSDIFGGTPVLVLCNGVEQVFELQLNSEEK
 consensus 241 *****.*****.*****.*****.*****.

Po_{LDH}_AY486058 293 MFDDAI-----
 Po_c_LDH 294 MFDDA-----
 Po_w_LDH 293 MFDDA-----

PfLDH	301	KFDEAIAETKRMKALA
consensus	301	.**.*.