

1 SUPPLEMENTARY MATERIAL TO

2 **Expression, purification and characterization of cellobiose dehydrogenase mutants from**

3 ***Phanerochaete chrysosporium* in *Pichia pastoris* KM71H strain**

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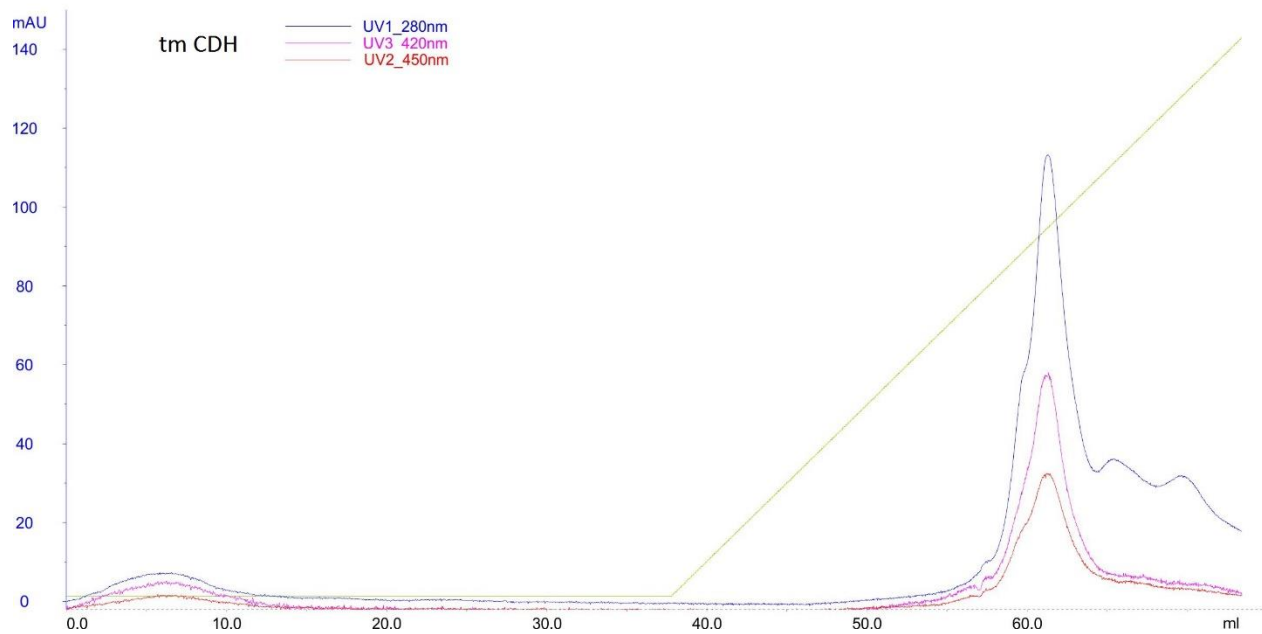
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31 TABLE S1. Primers used for creation of triple mutant and error prone library mutants using  
32 wtCDH – pPICZ $\alpha$ A vector as template

Primer name	Primer sequence
Forward primer D20N	GGTATCACCAACCCTGTTCATG
Forward primer A64T	CTCGGTGGCACCATGAACAAC
Forward primer V592M	CGCAGCCTCCATGAACTCC
Forward primer D20N – V22A	CACCAACCCTGCTCATGACG
Forward primer T84A	TTTCCTCCGCTCGCTGG
Forward primer A261P	ACGTATGTCCCTCCATG
Forward primer E674G	AGACACTCGGGGAGTACG
Forward primer N715S	TTGGCACGAGCAACCTGTTT

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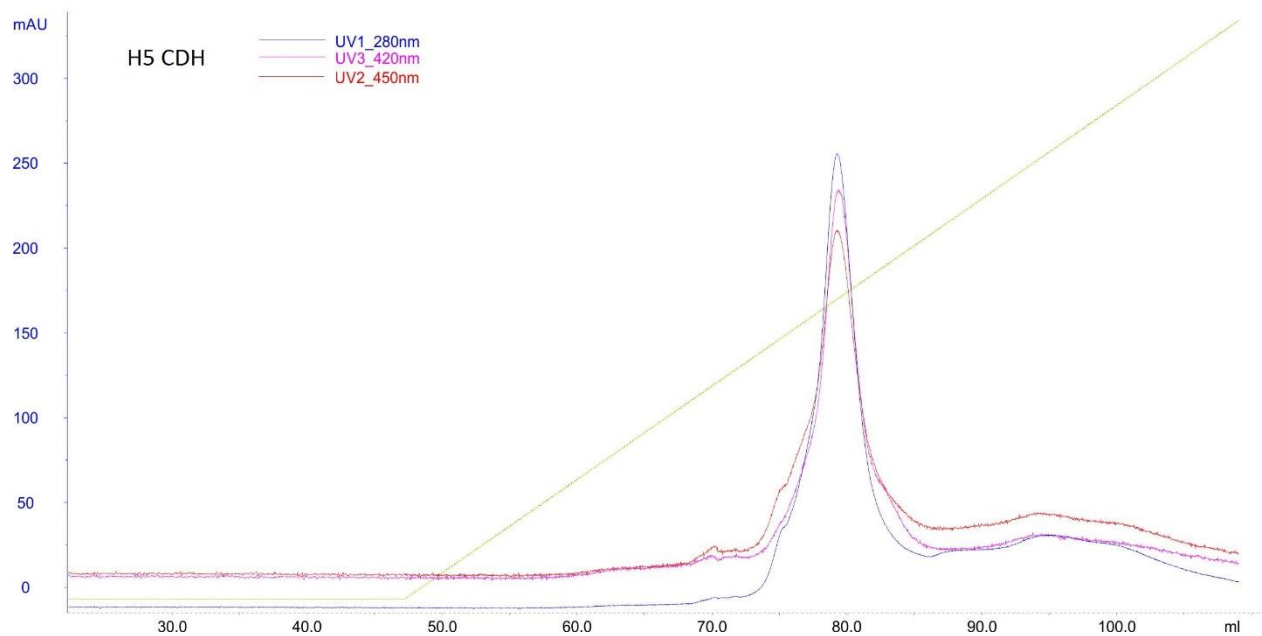


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Fig. S1. Ion-exchange chromatography of tm CDH

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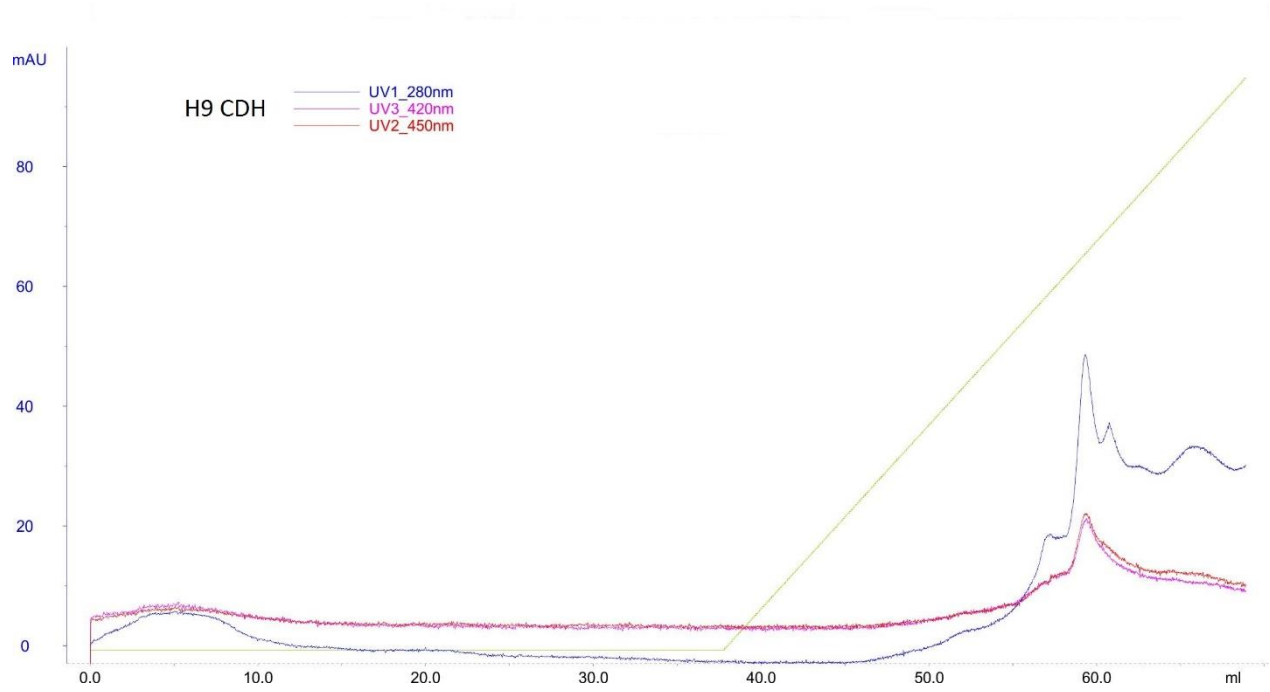
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Fig. S2. Ion-exchange chromatography of H5 CDH

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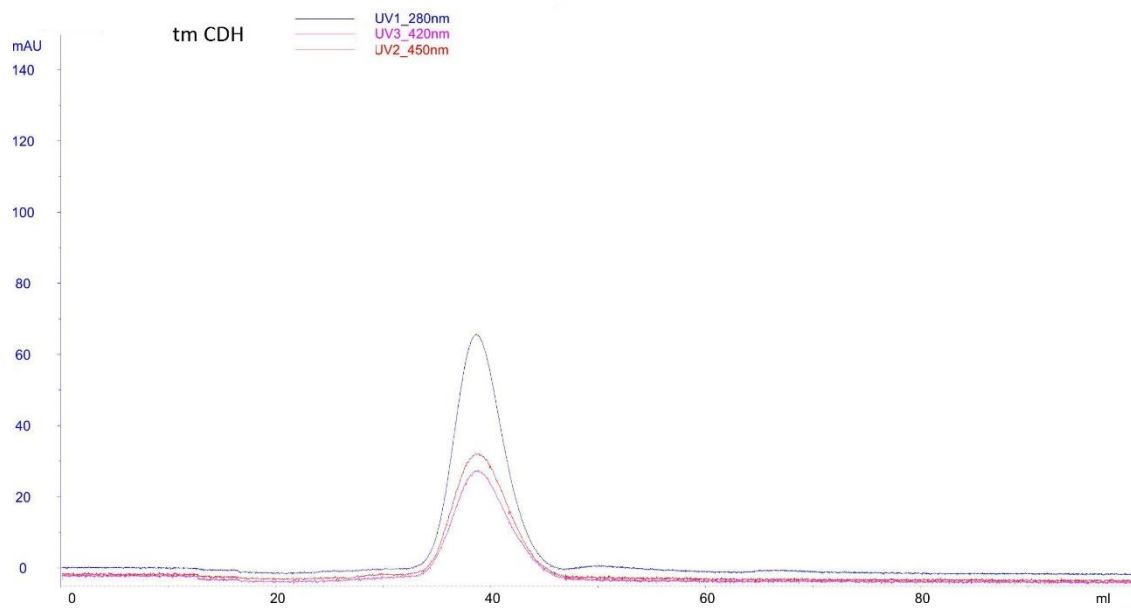


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Fig. S3. Ion-exchange chromatography of H9 CDH

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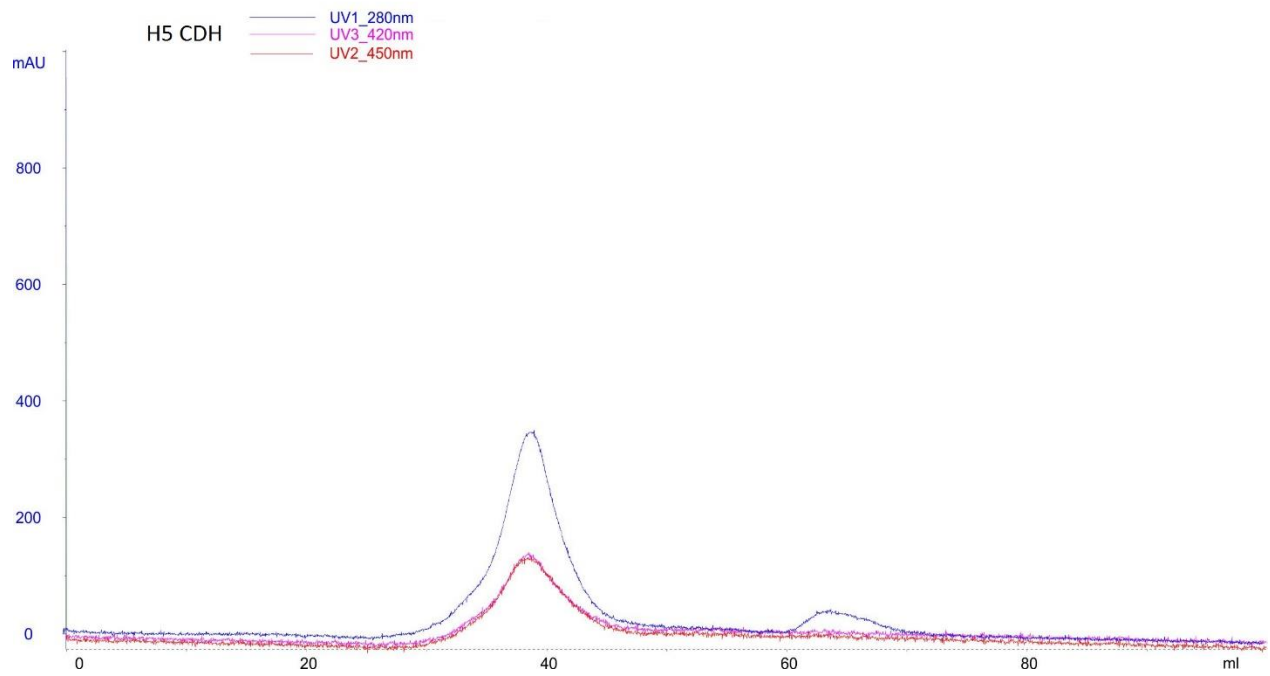


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Fig. S4. Gel filtration of tm CDH

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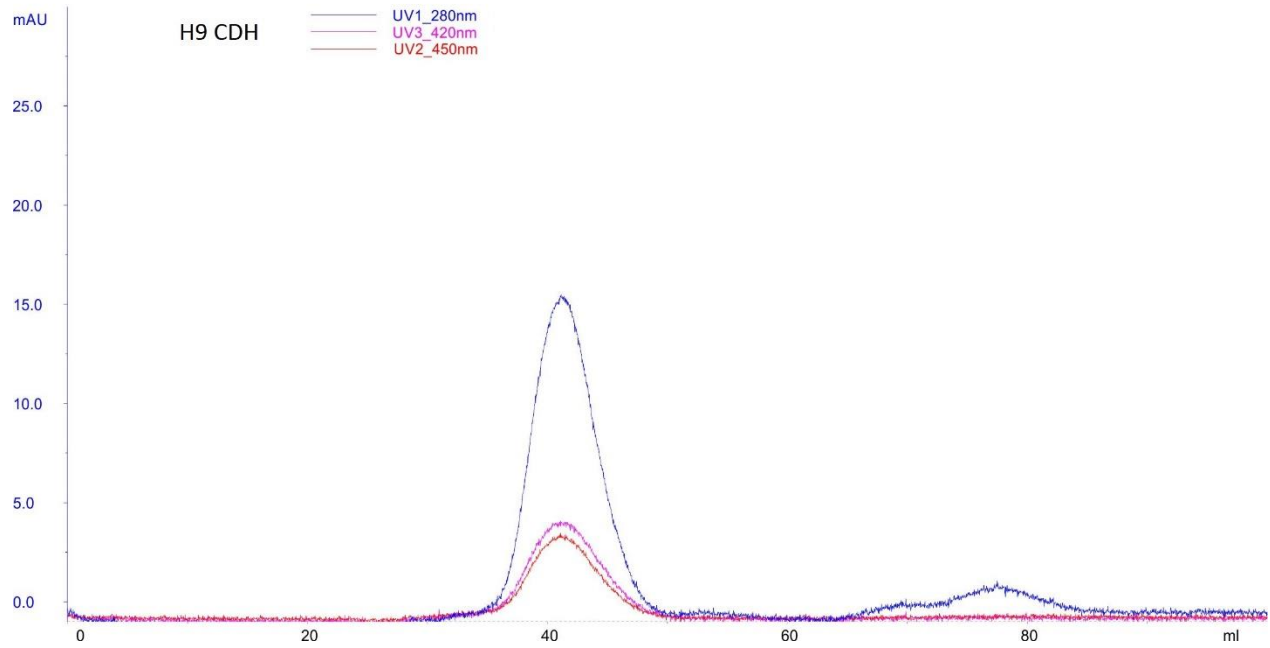


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Fig. S5. Gel filtration of H5 CDH

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Fig. S6. Gel filtration of H9 CDH

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53 TABLE S2 Purification table for CDH. FM-fermentation media, UF-ultrafiltrate, DEAE-sample  
 54 after ion-exchange chromatography, GF-sample after gel filtration. *Cp*-protein concentration, *Ac*-  
 55 enzyme activity, *V*-volume, *Y*-yield of purification, *Pf*-purification factor, *Sp*-specific enzyme  
 56 activity.

	<b>tm CDH</b>				<b>H5 CDH</b>				<b>H9 CDH</b>			
	FM	UF	DEAE	GF	FM	UF	DEAE	GF	FM	UF	DEAE	GF
<i>Cp</i> / mg mL <sup>-1</sup>	0.59	0.42	0.48	0.08	0.52	0.45	0.74	0.17	0.46	0.20	0.15	0.024
<i>Ac</i> / IU mL <sup>-1</sup>	0.91	2.34	5.41	1.17	1.99	7.30	16.5	4.89	0.42	1.10	1.87	0.34
<i>V</i> / mL	50	12	3	7	50	12	3	6	50	12	3	5
<i>Y</i> / %	100	62	36	18	100	88	50	29	100	63	27	8.2
<i>Pf</i>	1	3.6	7.2	9.1	1	4.2	5.8	7.3	1	5.9	13	16
<i>Sp</i> / IU mg <sup>-1</sup>	1.55	5.55	11.2	14.1	3.83	16.2	22.4	28.1	0.92	5.44	12.2	14.5

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