

**Supplementary Table S2. Regulation of *lacZ* fusions with genes that might be involved in zinc homeostasis<sup>a</sup>.**

Gene	Condition	Parent, -fold change		
		AE104	$\Delta zupT$	$\Delta 7$
Rmet_0837 4.83±0.11	0	1.00	1.26	<b>0.42</b>
	10 $\mu$ M Cd(II)	0.82	1.05	<b>0.34</b>
	125 $\mu$ M Cd(II)	1.10	1.21	0.54
	10 $\mu$ M Co(II)	1.00	1.08	<b>0.27</b>
	125 $\mu$ M Co(II)	0.87	1.21	<b>0.35</b>
	50 $\mu$ M EDTA	1.47	<b>3.14</b>	1.12
	1 mM EDTA	<b>51.03</b>	<b>50.85</b>	<b>39.69</b>
	10 $\mu$ M Zn(II)	0.97	0.93	<b>0.29</b>
	125 $\mu$ M Zn(II)	<b>5.61</b>	<b>4.87</b>	<b>2.18</b>
Rmet_1098 1.20±0.16	0	1.00	<b>3.70</b>	n.d.
	10 $\mu$ M Cd(II)	1.43	<b>7.21</b>	n.d.
	125 $\mu$ M Cd(II)	1.04	<b>4.02</b>	n.d.
	10 $\mu$ M Co(II)	0.89	<b>2.96</b>	n.d.
	125 $\mu$ M Co(II)	0.82	<b>2.83</b>	n.d.
	50 $\mu$ M EDTA	<b>20.34</b>	<b>96.02</b>	n.d.
	1 mM EDTA	<b>66.09</b>	<b>69.67</b>	n.d.
	10 $\mu$ M Zn(II)	0.82	<b>2.61</b>	n.d.
	125 $\mu$ M Zn(II)	0.71	<b>3.31</b>	n.d.
Rmet_1106 6.41±0.08	0	1.00	0.65	n.d.
	10 $\mu$ M Cd(II)	0.87	0.56	n.d.
	125 $\mu$ M Cd(II)	0.66	<b>0.17</b>	n.d.
	10 $\mu$ M Co(II)	1.12	0.61	n.d.
	125 $\mu$ M Co(II)	0.93	<b>0.27</b>	n.d.
	50 $\mu$ M EDTA	1.15	0.59	n.d.
	1 mM EDTA	<b>4.07</b>	1.96	n.d.
	10 $\mu$ M Zn(II)	1.06	0.64	n.d.
	125 $\mu$ M Zn(II)	0.90	<b>0.23</b>	n.d.
Rmet_1114 26.2±2.5	0	1.00	0.71	<b>0.50</b>
	10 $\mu$ M Cd(II)	0.82	0.78	0.58
	125 $\mu$ M Cd(II)	0.92	0.82	0.54
	10 $\mu$ M Co(II)	0.94	0.71	<b>0.49</b>
	125 $\mu$ M Co(II)	0.94	0.87	<b>0.47</b>
	50 $\mu$ M EDTA	<b>3.17</b>	<b>4.49</b>	1.21
	1 mM EDTA	<b>7.11</b>	<b>6.36</b>	<b>4.43</b>
	10 $\mu$ M Zn(II)	0.80	0.64	<b>0.48</b>
	125 $\mu$ M Zn(II)	1.07	1.01	0.52

Rmet_1794	0	1.00	0.82	<b>0.44</b>
15.0±0.3	10 µM Cd(II)	0.85	0.84	<b>0.37</b>
	125 µM Cd(II)	0.54	0.68	<b>0.25</b>
	10 µM Co(II)	0.78	0.80	<b>0.34</b>
	125 µM Co(II)	0.64	0.66	<b>0.29</b>
	50 µM EDTA	0.90	0.95	<b>0.43</b>
	1 mM EDTA	0.95	1.01	<b>0.30</b>
	10 µM Zn(II)	1.05	0.90	<b>0.40</b>
	125 µM Zn(II)	0.66	0.75	<b>0.30</b>
Rmet_1819	0	1.00	<b>3.45</b>	n.d.
1.49±0.04	10 µM Cd(II)	0.81	<b>2.87</b>	n.d.
	125 µM Cd(II)	1.26	<b>2.59</b>	n.d.
	10 µM Co(II)	1.02	<b>4.00</b>	n.d.
	125 µM Co(II)	1.10	<b>3.00</b>	n.d.
	50 µM EDTA	1.13	<b>3.71</b>	n.d.
	1 mM EDTA	<b>79.18</b>	<b>54.51</b>	n.d.
	10 µM Zn(II)	0.76	<b>3.28</b>	n.d.
	125 µM Zn(II)	<b>3.28</b>	<b>4.67</b>	n.d.
Rmet_3361	0	1.00	0.83	0.81
12.7±2.1	10 µM Cd(II)	0.81	0.71	0.78
	125 µM Cd(II)	<b>0.43</b>	<b>0.43</b>	0.89
	10 µM Co(II)	0.86	0.74	0.73
	125 µM Co(II)	0.64	0.64	0.63
	50 µM EDTA	0.97	0.88	0.83
	1 mM EDTA	0.91	0.91	0.79
	10 µM Zn(II)	0.69	0.73	0.83
	125 µM Zn(II)	<b>0.47</b>	<b>0.47</b>	0.65
Rmet_5377	0	1.00	<b>5.68</b>	<b>0.66</b>
0.78±0.22	10 µM Cd(II)	1.25	<b>5.18</b>	n.d.
	125 µM Cd(II)	0.60	0.84	<b>0.41</b>
	10 µM Co(II)	0.80	<b>4.89</b>	n.d.
	125 µM Co(II)	0.79	1.51	<b>0.50</b>
	50 µM EDTA	<b>5.30</b>	<b>5.76</b>	n.d.
	1 mM EDTA	<b>107.83</b>	<b>81.89</b>	<b>82.77</b>
	10 µM Zn(II)	1.14	<b>3.50</b>	n.d.
	125 µM Zn(II)	<b>2.19</b>	<b>2.12</b>	<b>0.28</b>

Rmet_5404	0	1.00	0.64	0.83
16.3±2.1	10 µM Cd(II)	0.76	0.50	0.61
	125 µM Cd(II)	<b>0.47</b>	<b>0.49</b>	<b>0.49</b>
	10 µM Co(II)	0.89	0.59	0.79
	125 µM Co(II)	0.77	0.58	0.72
	50 µM EDTA	0.80	0.68	0.73
	1 mM EDTA	0.82	0.77	0.66
	10 µM Zn(II)	0.71	0.55	0.70
	125 µM Zn(II)	0.57	<b>0.48</b>	0.59
Rmet_5640	0	1.00	0.75	0.55
10.5±0.8	10 µM Cd(II)	0.84	0.70	<b>0.46</b>
	125 µM Cd(II)	0.61	0.81	0.61
	10 µM Co(II)	0.90	0.62	0.55
	125 µM Co(II)	0.70	1.00	0.53
	50 µM EDTA	1.02	0.93	0.63
	1 mM EDTA	<b>5.71</b>	<b>5.63</b>	<b>4.15</b>
	10 µM Zn(II)	0.84	0.63	0.51
	125 µM Zn(II)	1.46	1.67	0.66
Rmet_5747	0	1.00	0.64	n.d.
6.15±0.35	10 µM Cd(II)	0.98	0.59	n.d.
	125 µM Cd(II)	0.82	0.69	n.d.
	10 µM Co(II)	1.06	0.72	n.d.
	125 µM Co(II)	0.94	1.06	n.d.
	50 µM EDTA	1.06	1.07	n.d.
	1 mM EDTA	<b>9.67</b>	<b>6.63</b>	n.d.
	10 µM Zn(II)	1.14	0.51	n.d.
	125 µM Zn(II)	1.85	1.21	n.d.

<sup>a</sup>The values below the gene names are the specific activities in AE104 cells cultivated in TMM without further additions. All other values were divided by this basic activity. Red and bold-faced numbers indicate significant (D >1) down-regulations, green and bold-faced numbers significant up-regulations