

## SUBCELLULAR ADENINE NUCLEOTIDES IN LIGHT AND DARK

Table I. *Subcellular Adenine Nucleotide Levels in Wheat Leaf Protoplast*

Protoplasts were incubated for 9 min at 20°C in the dark or light. KCN or DNP were added 8 min before fractionation. The results are mean values  $\pm$  SE; *n*, number of experiments.

	ATP	ADP	AMP	$\Sigma$ AdN	<i>n</i>
	<i>nmol/mg Chl</i>				
<b>Light</b>					
Total	70.4 $\pm$ 6.9	22.5 $\pm$ 4.1	10.4 $\pm$ 1.6	103.3 $\pm$ 10.8	9
Chloroplast	27.9 $\pm$ 3.0	13.2 $\pm$ 3.2	6.8 $\pm$ 1.7	47.4 $\pm$ 5.1	
Cytosol	35.5 $\pm$ 3.4	6.3 $\pm$ 1.2	4.9 $\pm$ 1.4	46.9 $\pm$ 5.5	
Mitochondria	6.9 $\pm$ 1.8	3.0 $\pm$ 0.5	-1.2 $\pm$ 0.9	8.7 $\pm$ 1.4	
<b>Dark</b>					
Total	63.0 $\pm$ 3.5	31.8 $\pm$ 2.2	13.9 $\pm$ 1.4	107.8 $\pm$ 5.8	17
Chloroplast	20.7 $\pm$ 2.0	20.5 $\pm$ 2.1	9.7 $\pm$ 1.4	50.9 $\pm$ 4.1	
Cytosol	39.1 $\pm$ 2.3	5.2 $\pm$ 0.6	4.7 $\pm$ 0.6	49.0 $\pm$ 3.0	
Mitochondria	3.2 $\pm$ 0.5	6.1 $\pm$ 0.7	-0.2 $\pm$ 0.7	8.9 $\pm$ 0.6	
<b>Dark + KCN (10 <math>\mu</math>M)</b>					
Total	46.1 $\pm$ 3.7	35.1 $\pm$ 2.2	19.6 $\pm$ 2.4	101.3 $\pm$ 4.3	6
Chloroplast	13.6 $\pm$ 1.2	22.0 $\pm$ 2.5	12.9 $\pm$ 2.4	46.7 $\pm$ 3.0	
Cytosol	29.1 $\pm$ 3.6	10.3 $\pm$ 0.5	6.0 $\pm$ 1.3	46.1 $\pm$ 4.0	
Mitochondria	3.5 $\pm$ 0.6	2.8 $\pm$ 0.8	2.4 $\pm$ 2.5	8.6 $\pm$ 1.6	
<b>Dark + DNP (20 <math>\mu</math>M)</b>					
Total	33.7 $\pm$ 3.2	35.8 $\pm$ 2.5	24.5 $\pm$ 5.4	93.4 $\pm$ 7.8	6
Chloroplast	10.2 $\pm$ 1.3	21.1 $\pm$ 2.5	15.6 $\pm$ 4.4	45.9 $\pm$ 6.0	
Cytosol	19.3 $\pm$ 2.7	9.9 $\pm$ 0.8	9.0 $\pm$ 2.7	38.5 $\pm$ 1.3	
Mitochondria	4.3 $\pm$ 0.5	4.9 $\pm$ 1.1	-0.2 $\pm$ 1.3	9.0 $\pm$ 2.0	
<b>Dark + DNP (40 <math>\mu</math>M)</b>					
Total	14.9 $\pm$ 1.4	34.1 $\pm$ 2.4	39.8 $\pm$ 1.3	92.7 $\pm$ 3.0	3
Chloroplast	9.3 $\pm$ 0.7	21.9 $\pm$ 1.0	17.1 $\pm$ 2.7	48.8 $\pm$ 2.4	
Cytosol	3.6 $\pm$ 0.4	10.4 $\pm$ 0.5	23.7 $\pm$ 2.4	37.8 $\pm$ 3.1	
Mitochondria	2.0 $\pm$ 1.5	1.8 $\pm$ 1.0	2.1 $\pm$ 2.0	6.2 $\pm$ 2.1	