

# **Melatonin alleviates low-sulfur stress by promoting sulfur homeostasis in tomato plants**

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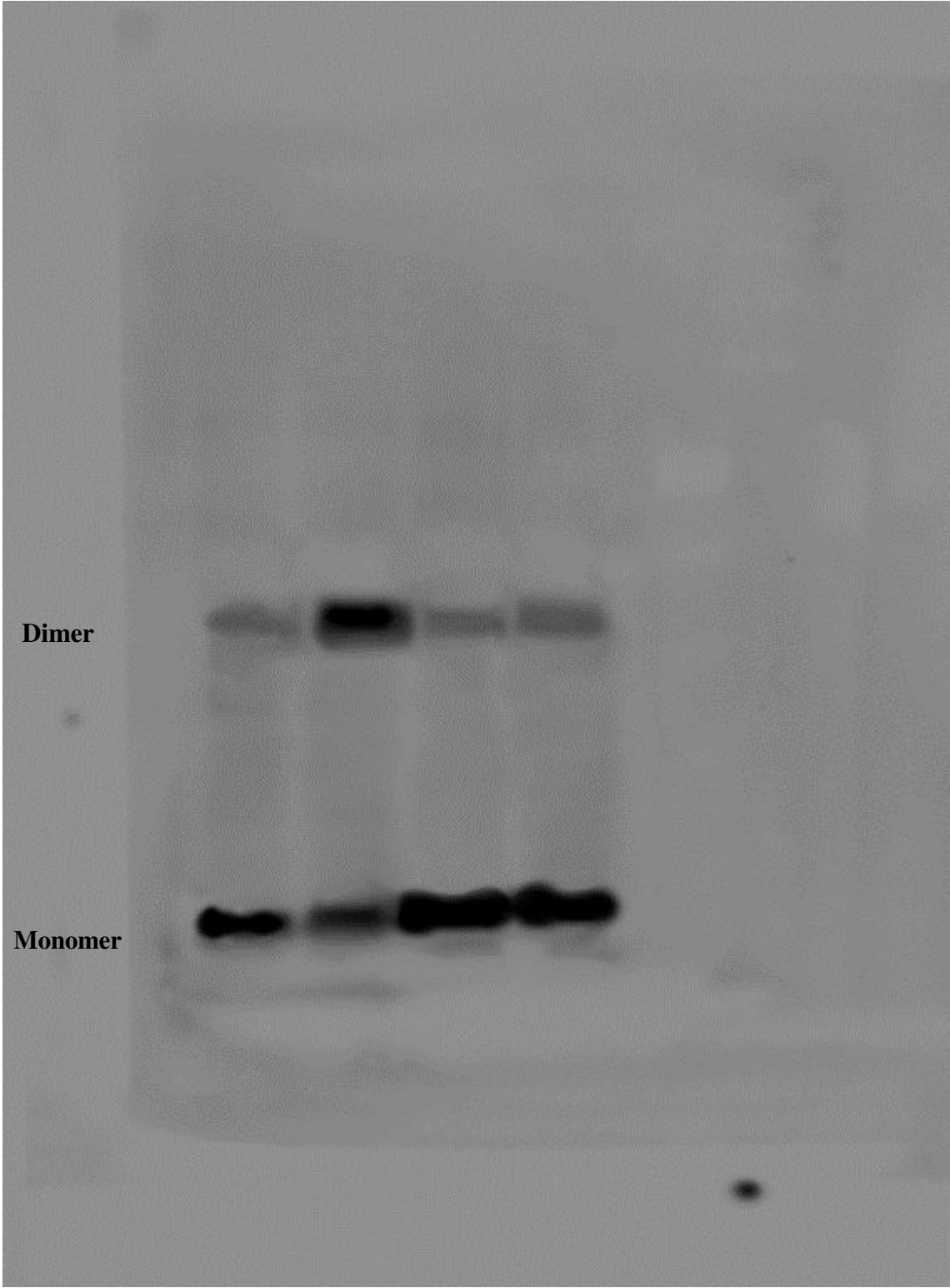
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## Supplementary information

**Supplementary Table-S1** Primer sequences used for the qRT-PCR of selected genes.

Gene name	Functional annotations	Primer sequences (5'-3')	Accession numbers
<i>ASMT</i>	Melatonin biosynthesis	F:TTTGTTAGTGTGCCGAAAGC; R: ACCGCTTCGTAGCAATTCTT	Solyc03g080180.2.1
<i>SUT1</i>	Sulfate anion transporter <i>SUT1;1</i>	F:GATATTGCGATAGGGCCAGT; R: GCAAGACGCTGATACTCGTG	Solyc10g047170.1.1
<i>SUT2</i>	Sulfate anion transporter <i>SUT1;2</i>	F:CCTGTTGCTGTTGTATCGCT; R: CAAATGCAGCCTGGAAAGTA	Solyc12g056920.1.1
<i>ATPS</i>	ATP sulfurylase (sulfate adenylyltransferase)	F: TCGTCTTGAAGATGGCTCTG; R: GGTCGAGCCACCAATTAGAT	Solyc03g005260.2.1
<i>APS</i>	adenylyl-sulfate reductase	F: TGAGAAGTTGGCTGGTTCTG; R: ATGGCCTTTGAAGAGTGCTT	Solyc02g080640.2.1
<i>SiR</i>	Sulfite reductase - ferredoxin dependent	F:AAAGAACCCTGGTGGTGAAG; R:CATGCAGCTGAAAGGTCTGT	Solyc11g065620.1.1
<i>OASTL</i>	O-acetylserine (thiol)lyase	F: ATGCTGAGGAGAAGGGCTTA; R: CCATGAATGCCAATCCTACA	Solyc08g014340.2.1
<i>CP1</i>	Alkyl hydroperoxide reductase /Thiol specific antioxidant	F: AAAGTCCGGTGGTCTAGGTG; R: GTGTAAGCCACGAGAAACCA	Solyc10g082030.1.1
<i>CP2</i>	Alkyl hydroperoxide reductase /Thiol specific antioxidant	F: ACCATGCATTTCTGCAAGAG; R: CCCTCAACCCTTCTCCACTA	Solyc01g007740.2.1
<i>UBI3</i>	Ubiquitin3	F: AGTCCACTCTCCATCTCGTG; R: CTCAGCATTAGGGCACTCCT	Solyc01g056940.2.1
<i>Actin</i>	marker gene	F: TGGTCGGAATGGGACAGAAG; R: CTCAGTCAGGAGAACAGGGT	Solyc03g078400.2.1

**Supplementary Figure S1 (a)** full length blot for the ratio of monomer-to-dimer of 2-CP protein



(b) Full length blot of total 2-CP protein

