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This product is **for research use only** (not for diagnostic or therapeutic use) **contact: support@agrisera.com**

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Product no AS10 111S

CP43' | IsiA homolog of plant CP43 positive control/quantitation standard

Product information

Format	Lyophilized
Quantity	250 µl
Reconstitution	For reconstitution add 225 µl of milliQ water
Storage	Store lyophilized/reconstituted at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. Please remember to spin the tubes briefly prior to opening them to avoid any losses that might occur from material adhering to the cap or sides of the tube.
Additional information	The IsiA protein standard can be used in combination with anti-IsiA antibodies to quantitate IsiA from a range of cyanobacteria. Global antibodies are raised against highly conserved amino acid sequences in theIsiA protein. Quantitative western blot: detailed method description, video tutorial

Application information

Recommended dilution	Standard curve: 3 loads are recommended (2.5 and 10 µl). For most applications a sample load of 0.2 µg of chlorophyll will give a IsiA signal in this range. Positive control: a 2 µl load per well is optimal for most chemiluminescent detection systems. This standard **is stabilized and ready** and does not require heating before loading on the gel. Please note that this product contains 10% glycerol and might appear as liquid but is provided lyophilized. Allow the product several minutes to solubilize after adding water. Mix thoroughly but gently Take extra care to mix thoroughly before each use, as the proteins tend to settle with the more dense layer after freezing.
Expected | apparent MW	27 kDa (slightly larger than native protein due to His-tag)
Additional information	**Concentration:** after adding 225 µl of milliQ water final concentration of the standard is 0.15 pmoles/µl **Protein standard buffer composition:** Glycerol 10%, Tris Base 141 mM, Tris HCl 106 mM, LDS 2%, EDTA 0.51 mM, SERVA® Blue G250 0.22 mM, Phenol Red 0.175 mM, pH 8.5, 0.1 mg/ml PefaBloc protease inhibitor (Roche), 50 mM DTT. **This standard is ready-to-load and does not require any additions or heating. It needs to be fully thawed and thoroughly mixed prior to using. Avoid vigorous vortexing, as buffers contain detergent. Following mixing, briefly pulse in a microcentrifuge to collect material from cap.** **Please note that this product contains 10% glycerol and might appear as liquid but is provided lyophilized. Allow the product several minutes to solubilize after adding water. Mix thoroughly but gently Take extra care to mix thoroughly before each use, as the proteins tend to settle with the more dense layer after freezing.**
Selected references	Fraser et al. (2013). Photophysiological and Photosynthetic Complex Changes during Iron Starvation in Synechocystis sp. PCC 6803 and Synechococcus elongatus PCC 7942.PLoS ONE 8(3): e59861. doi:10.1371/journal.pone.0059861 Ryan-Keogh et al. (2012). Iron deficiency in cyanobacteria causes monomerization of photosystem I trimers and reduces the capacity for state transitions and the effective absorption cross section of photosystem I in vivo. J. of Phycology, 1:145-154.