Agrisera

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

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product AS10 111S

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

product information

Background	This product is a recombinant protein standard, source: *Synechocystis* strain PCC 6803.
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 tubes briefly prior to opening them to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tubes.
Tested applications	Western blot (WB)
Related products	AS06 111 | anti-CP43' | IsiA homolog of plant CP43 antibodies Collection of global antibodies Collection of antibodies to photosynthetic proteins Plant and algal protein extraction buffer
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 0.2µg of chlorophyll will give a IsiA signal in this range. Positive control:a 2µl 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, 0.1mg/ml PefaBloc protease inhibitor (Roche), 50mM 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.