

PsbA | D1 protein of PSII positive control/quantitation standard

Cat PA00988

Size 100 μ l

Host

Clonality

Confirmed reactivity

Format

Lyophilized in glycerol.

Reconstitution

For reconstitution add 95 μ l of sterile water, Please notice that this product contains 10% glycerol and might appear as liquid but is provided lyophilized

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.

Application

Western blot (WB)

Recommended dilution

Standard curve: 3 loads are recommended (0.5, 2 and 4 μ l). For most applications a sample load of 0.2 μ g of chlorophyll will give a PsbA signal in this range. Positive control: a 2 μ l load per well is optimal for most chemiluminescent detection systems. Non-disulphidic dependent dimers and complexes can be also detected using standard western blot methods with more sensitive detection reagents as ECL Advance or West Pico when loading per well more standard than recommended. They have not been included in the standard calibration. 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

The standard has an actual MW of 41,5 kDa, The presence of a His6 tag causes it to run \sim 1,7 kDa higher on the gel than the native protein, Note that in most systems, PsbA migrates with an apparent MW of between 30 and 35 kDa,

Additional information

The PsbA protein standard can be used in combination with global anti-PsbA antibodies to quantitate PsbA from a wide range of species. Global antibodies are raised against highly conserved amino acid sequences in the PsbA protein. Quantitative western blot: detailed method description, video tutorial The goals when doing quantitative work: The sample PsbA must fall somewhere between the upper and lower standard loads. There should be at least 3 points on the standard curve. if possible, try to make the entire range of the curve around one order of magnitude or less (as in the application example). if possible, load

Description

The psbA gene has been cloned from many plants, green algae and cyanobacteria. The psbA gene is located in the chloroplast genome and encodes the D1 protein, a core component of photosystem II. PsbA/D1 cycles rapidly under the light of all oxygen-containing photoorganisms. Tracking PsbA pools with Global PsbA antibodies can reveal the functional content of photosystem II in a wide range of samples. This is a recombinant protein standard,

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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source: Polycystis PCC 6803.

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