

# Agrisera

This product is for research use only (not for diagnostic or therapeutic use)

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product **AS08 330S**

**PetC | Rieske iron-sulfur protein of Cyt b6/f complex, protein standard**

## product information

<b>Background</b>	<p><b>Rieske Iron-Sulfur Protein (Q9ZR03)</b> is located in chloroplast thylakoid membrane as a component of cytochrome b6-f complex, which mediates electron transfer between photosystem II (PSII) and photosystem I (PSI), cyclic electron flow around PSI, and state transitions. Alternative names: Rieske iron-sulfur protein, RISP, ISP, plastohydroquinone:plastocyanin oxidoreductase iron-sulfur protein, proton gradient regulation protein 1</p> <p>This is a recombinant protein standard, source: <i>Synechocystis</i> PCC 6803.</p>
<b>Format</b>	Lyophilized
<b>Quantity</b>	250 µl
<b>Reconstitution</b>	For reconstitution add 225 µl of milliQ water. Please notice that this product contains 10% glycerol and might appear as liquid but is provided lyophilized.
<b>Storage</b>	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.
<b>Tested applications</b>	Western blot (WB)
<b>Related products</b>	<p><a href="#">AS08 330</a>   Anti-PetC   Rieske iron-sulfur protein of Cyt b6/f complex, rabbit antibodies</p> <p><a href="#">collection of antibodies to proteins involved in electron transfer</a></p> <p><a href="#">collection of other protein standards</a></p> <p><a href="#">Collection of global antibodies</a></p> <p><a href="#">Plant protein extraction buffer</a></p>
<b>Additional information</b>	<p>The PetC protein standard can be used in combination with global <a href="#">anti-PetC antibodies</a> to quantitate PetC from a wide range of species. <a href="#">Global antibodies</a> are raised against highly conserved amino acid sequences in the PetC protein.</p> <p>Quantitative western blot: <a href="#">detailed method description</a>, <a href="#">video tutorial</a></p>

## Application information

<b>Recommended dilution</b>	<p>Standard curve: 3 loads are recommended (0.5, 2 and 4µl). For most applications a sample load of 0.2µg of chlorophyll will give a PsbA signal in this range.</p> <p>Positive control: a 2µl load per well is optimal for most chemiluminescent detection systems.</p> <p>This standard <b>is stabilized and ready</b> 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.</p>
<b>Expected   apparent MW</b>	33 kDa (larger than native protein due to the addition of His-tag). In most gel systems, PetC protein migrates at 23 kDa
<b>Additional information</b>	<p><b>Concentration:</b> after adding 225 µl of milliQ water final concentration of the standard is 0.15 pmol/µl</p> <p><b>Protein standard buffer composition:</b> 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.</p> <p><b>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.</b></p>

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## Selected references

Wu et al. (2014). Large centric diatoms allocate more cellular nitrogen to photosynthesis to counter slower RUBISCO turnover rates. *Front. Mar. Sci.*, 09 December 2014 | doi: 10.3389/fmars.2014.00068.  
Li et al. (2014). The nitrogen costs of photosynthesis in a diatom under current and future pCO<sub>2</sub>. *New Phytol.* 2014 Sep 25. doi: 10.1111/nph.13037.