

# Anti-RbcL subunit of RuBisCO antibody

Catalog: PHY1927

## Product Information

<b>Description:</b>	Mouse monoclonal antibody
<b>Background:</b>	Ribulose-1,5-bisphosphate carboxylase/oxygenase commonly known by the abbreviation RuBisCO, is an enzyme involved in the first major step of carbon fixation, a process by which atmospheric carbon dioxide is converted by plants to energy-rich molecules such as glucose. In chemical terms, it catalyzes the carboxylation of ribulose-1,5-bisphosphate (also known as RuBP). It is probably the most abundant enzyme on Earth.  The enzyme usually consists of two types of protein subunit, called the large chain (RbcL) and the small chain (RbcS).
<b>Synonyms:</b>	RbcL, Ribulose-1,5-bisphosphate carboxylase, oxygenase
<b>Immunogen:</b>	KLH-conjugated synthetic peptide (16 aa from N terminal section) derived from <i>Arabidopsis thaliana</i> RbcL (ATCG00490).
<b>Form:</b>	Lyophilized
<b>Quantity:</b>	150 µg
<b>Purification:</b>	Protein A purified
<b>Reconstitution:</b>	Reconstitution with 150 µl of sterile 1XPBS (PH=7.4).  "Note: please spin tube briefly prior to opening it to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tube".
<b>Stability &amp; Storage:</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.  12 months from date of receipt, -20 to -70°C as supplied.  6 months, -20 to -70°C under sterile conditions after reconstitution.  1 month, 2 to 8°C under sterile conditions after reconstitution.
<b>Shipping:</b>	The product is shipped at 4°C. Upon receipt, store it immediately at the temperature recommended above.

## Application Information

<b>Recommended Dilution:</b>	Western Blot (1:1000-1:2000)  Note: Optimal dilutions/concentrations should be determined by the end user.
<b>Expected / apparent MW:</b>	53 kDa

Research Use Only

**Confirmed Reactivity:**

*Arabidopsis thaliana, Brassica napus, Zea mays, Setaria viridis.*

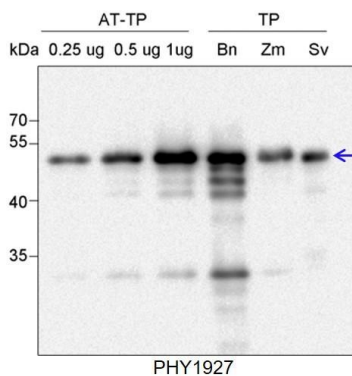
**Predicted Reactivity:**

Among species analyzed, the sequence of the synthetic peptide used for immunization is 100% homologues with the sequence in *Solanum tuberosum, Oryza sativa, Brassica rapa, Leymus chinensis, Gossypium raimondii, Nicotiana tabacum, Medicago truncatula, Populus trichocarpa, Glycine max, Cucumis sativus, Hordeum vulgare, Triticum aestivum, Panicum virgatum, Solanum lycopersicum, Sorghum bicolor, Chlamydomonas reinhardtii, Vitis vinifera.*

For more species homologues information, please contact tech support at [tech@phytoab.com](mailto:tech@phytoab.com).

## Application Example

### Example 1



AT-TP: 0.25  $\mu$ g, 0.5  $\mu$ g and 1  $\mu$ g total protein from *Arabidopsis thaliana*.

Bn-TP: 1  $\mu$ g total protein from *Brassica napus*.

Zm-TP: 1  $\mu$ g total protein from *Zea mays*.

Sv-TP: 1  $\mu$ g total protein from *Setaria viridis*.

**Electrophoresis:** 15% SDS-PAGE

**Transfer:** blotting to NC (nitrocellulose) membrane for 1 h.

**Blocking:** 5% skim milk at RT or 4°C for 1 h.

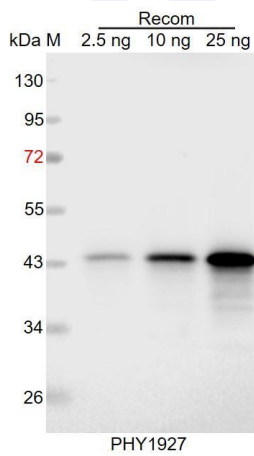
**Primary antibody:** 1:2000 dilution overnight at 4°C.

**Secondary antibody:** 1:5000 dilution using Goat Anti-Mouse IgG

H&L(HRP) (Cat# PHY6006)

**Detection:** using chemiluminescence substrate and image were captured with CCD camera.

## Example 2



Recom: 2.5 ng, 10 ng and 25 ng recombinant protein containing the peptide for immunization and having a molecular mass of 45 kDa.

**Electrophoresis:** 12% SDS-PAGE

**Transfer:** blotting to NC (nitrocellulose) membrane for 1 h.

**Blocking:** 5% skim milk at RT or 4°C for 1 h.

**Primary antibody:** 1:1000 dilution overnight at 4°C.

**Secondary antibody:** 1:10000 dilution using Goat Anti-Rabbit IgG H&L (HRP) (Cat# PHY6006).

**Detection:** using chemiluminescence substrate and image were captured with CCD camera.