SunLong Biotech Co.,LTD
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Mouse Anti-Rubisco antibody

SLM-60435M

Product Name	Rubisco
Chinese Name	核糖二磷酸羧化酶大链单克隆抗体
Alias	rbcL; RBL_SPIOL; Ribulose bisphosphate carboxylase large chain; EC:4.1.1.39; RuBisCO large subunit; RuBisCO large subunit [Spinacia oleracea (spinach)]; ribulose-1; ribulose-1,5-bisphosphate carboxylase/oxygenase large subunit (chloroplast) [Arabidopsis lyrata];
Immunogen Species	Mouse
Clonality	Monoclonal
Clone NO.	H1E7
React Species	Arabidopsis Thaliana,Rice
Applications	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	52kDa
Form	Liquid
Concentration	1mg/ml
Lsotype	IgG1/Kappa
Purification	Affinity purified by Protein G
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product Detail	RuBisCO catalyzes two reactions: the carboxylation of D-ribulose 1,5-bisphosphate, the primary event in carbon dioxide fixation, as well as the oxidative fragmentation of the pentose substrate in the photorespiration process. Both reactions occur simultaneously and in competition at the same active site.

Function:
RuBisCO catalyzes two reactions: the carboxylation of D-ribulose 1,5-bisphosphate, the primary event in carbon dioxide fixation, as well as the oxidative fragmentation of the pentose substrate in the photorespiration process (PubMed:2928307) (Probable). Both reactions occur simultaneously and in competition at the same active site (Probable). Binds to abscisic acid (ABA) which has weakly inhibits carboxylation and more strongly inhibits enzyme activation (PubMed:26197050).

Subunit:
Heterohexadecamer of 8 large chains and 8 small chains.

Subcellular Location:
Plastid, chloroplast.

Post-translational modifications:
The disulfide bond which can form between Cys-247 in the large chain dimeric partners within the hexadecamer appears to be associated with oxidative stress and protein turnover. The disulfide bonds reported in 1RBO may be the result of oxidation during crystallization.

Similarity:
Belongs to the RuBisCO large chain family. Type I subfamily.

SWISS:
P00875

Gene ID:
2715621

Database links:

Entrez Gene: 2715621 Spinacia oleracea

SwissProt: P00875 Spinacia oleracea

RuBisCO 催化两种反应：D-核酮糖 1,5-二磷酸的羧化反应（二氧化碳固定的主要事件）以及光呼吸过程中戊糖底物的氧化裂解。两种反应同时发生，并在同一活性部位竞争。与脱落酸（ABA）结合，ABA 对羧化的抑制较弱，对酶的激活的抑制作用更强。

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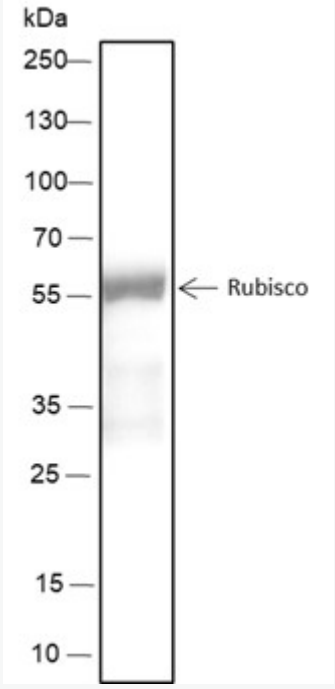
Product Picture



Blocking buffer: 5% NFDM/TBST

Primary ab dilution: 1:2000

Primary ab incubation condition: room temperature 2h

Secondary ab: Goat Anti-Mouse IgG H&L (HRP)

Lysate: Arabidopsis thaliana

Protein loading quantity: 5 μg

Exposure time: 10 s

Predicted MW: 55 kDa

Observed MW: 55 kDa

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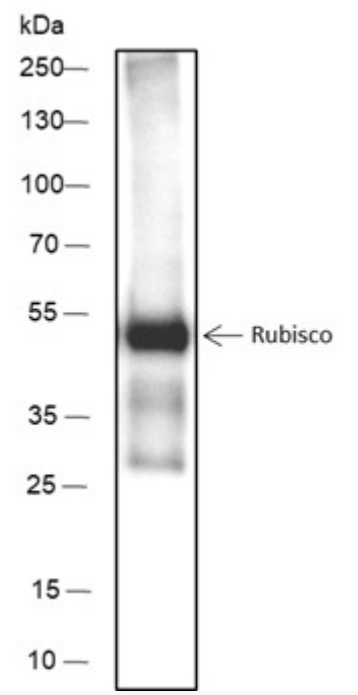

Blocking buffer: 5% NFDM/TBST

Primary ab dilution: 1:2000

Primary ab incubation condition: room temperature 2h

Secondary ab: Goat Anti-Mouse IgG H&L (HRP)

Lysate: Rice

Protein loading quantity: 08 μg

Exposure time: 10 s

Predicted MW: 55 kDa

Observed MW: 55 kDa