USA Tel: 1-877-374-4368 • Int. Tel: 1-718-484-3990
sales@epigentek.com • www.epigentek.com

RuBisCO Activase Polyclonal Antibody

(Catalog # A52010)

Background

Ribulose-1,5-bisphosphate carboxylase oxygenase, most commonly known by the shorter name RuBisCO,is an enzyme involved in the Calvin cycle that catalyzes the first major step of carbon fixation, a process by which the atoms of atmospheric carbon dioxide are made available to organisms in the form of energy-rich molecules such as glucose. RuBisCO catalyzes either the carboxylation or the oxygenation of ribulose-1,5-bisphosphate (also known as RuBP) with carbon dioxide or oxygen. RuBisCO is very important in terms of biological impact because it catalyzes the primary chemical reaction by which inorganic carbon permanently enters the biosphere. Many autotrophic bacteria and archaea fix carbon via the reductive acetyl CoA pathway, the 3-hydroxypropionate cycle or the reverse Krebs cycle, but they make up a relatively minor portion of global net primary production. Phosphoenolpyruvate carboxylase PEPC only temporarily fixes carbon. RuBisCO is also the most abundant protein in leaves, and is considered to be the most abundant protein on Earth. It accounts for 50% of soluble leaf protein in C3 plants (20-30% of total leaf nitrogen) and 30% of soluble leaf protein in C4 plants (5-9% of total leaf nitrogen). Given its important role in the biosphere, there are currently efforts to genetically engineer crop plants so as to contain more efficient RuBisCO.

Description

RuBisCO Activase Polyclonal Antibody. Unconjugated. Raised in: Rabbit.

Formulation

Liquid. 0.03% Proclin 300, 50% Glycerol, 0.01M PBS, PH 7.4.

Specificity

Spinach

Isotype

IgG

Uniprot ID

P10871

Purification

>95%, Protein G purified

Immunogen

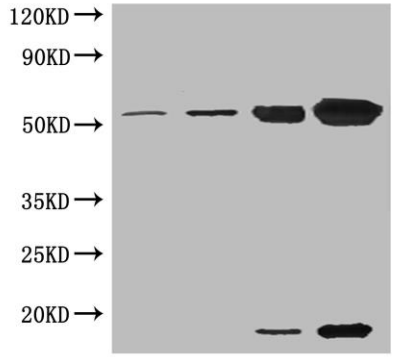
Ribulose-1,5-bisphosphate carboxylase oxygenase (Native Protein)

Storage

Shipped at 4°C. Upon delivery aliquot and store at -20°C (short-term) or -80°C (long-term). Avoid repeated freeze.

Application

ELISA, WB; Recommended dilution: WB:1:1000-1:5000



Western blot
All lanes: RuBisCO Activase Polyclonal Antibody at 5ug/ml
Lane 1: Ribulose-1, 5-bisphosphate carboxylase oxygenase at 0.01ug/ml
Lane 2: Ribulose-1, 5-bisphosphate carboxylase oxygenase at 0.1ug/ml
Lane 3: Ribulose-1, 5-bisphosphate carboxylase oxygenase at 1ug/ml
Lane 4: Ribulose-1, 5-bisphosphate carboxylase oxygenase at 10ug/ml
Secondary
Goat polyclonal to rabbit at 1/15000 dilution
Predicted band size: 55kDa, 14kDa
Observed band size: 55kDa, 14kDa

