

# Download What Does Rubisco Do

Figure 1. A 3d depiction of the activated RuBisCO from spinach in open form with active site accessible. The active site Lys175 residues are marked in pink, and a close-up of the residue is provided to the right for one of the monomers composing the enzyme. Ribulose-1,5-bisphosphate carboxylase/oxygenase (Rubisco) is the major enzyme assimilating CO<sub>2</sub> into the biosphere. At the same time Rubisco is an extremely inefficient catalyst and its carboxylase activity is compromised by an opposing oxygenase. Ask the Experts: Does Rising CO<sub>2</sub> Benefit Plants? Climate change's negative effects on plants will likely outweigh any gains from elevated atmospheric carbon dioxide levels. This animation of the Calvin cycle is designed to show, in 3 stages, the major events in the synthesis of sugar in the stroma of chloroplasts.