

Séminaire de Biologie des Plantes

Les séminaires ont lieu sur le Campus Montpellier SupAgro/INRA de La Gaillarde
(2, place P. Viala Montpellier)

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Jeudi 2 décembre 2010

Amphi 2 (A gauche du bâtiment administratif) à 14 h00

Nadine Paris

(CR-CNRS B&PMP – Equipe *Dynamique intracellulaire des protéines*)

The dipeptide Ile-Met of the vacuolar receptor BP80 is required for recycling from the prevacuole and for endocytosis.

Pea (*Pisum sativum*) BP80 is a sorting receptor for soluble proteins stored in the vacuole. The receptor interacts with the vacuolar soluble ligands in the trans Golgi, releases them in the prevacuole and recycles back to the Golgi. The receptor has a unique transmembrane domain and a 34 amino acids cytosolic domain essential for its intracellular trafficking between the trans Golgi network and the prevacuole. We produced chimeras of green fluorescent protein (GFP) fused to the transmembrane domain of pea BP80 along with modified cytosolic tails, in order to analyze the receptor trafficking features. We identified a dipeptide retrieval signal Ile-Met and demonstrated that BP80 undergoes brefeldin A-sensitive endocytic cycling. We proposed that the receptor can use an alternative pathway through the plasma membrane. The dipeptide Ile-Met plays a dual role (1) in the main pathway by preventing the receptor to follow its ligand towards the lytic vacuole and (2) in the alternative route by participating in the receptor endocytosis.

Contact :

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Séminaire à venir :

Jeudi 9 décembre : Alex Costa (Tou-Cheu XIONG, xiong@supagro.inra.fr)