

Abstract

Due to the presence of plastids, eukaryotic photosynthetic cells represent the most highly compartmentalized eukaryotic cells. This high degree of compartmentation requires the transport of solutes across intracellular membrane systems by specific membrane transporters. In this review, we summarize the recent progress on functionally characterized intracellular plant membrane transporters and we link transporter functions to Arabidopsis gene identifiers and to the transporter classification system. In addition, we outline challenges in further elucidating the plant membrane permeome and we provide an outline of novel approaches for the functional characterization of membrane transporters.

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