

PLA₂ and PI3K/PTEN Pathways Act

in Parallel to Mediate Chemotaxis

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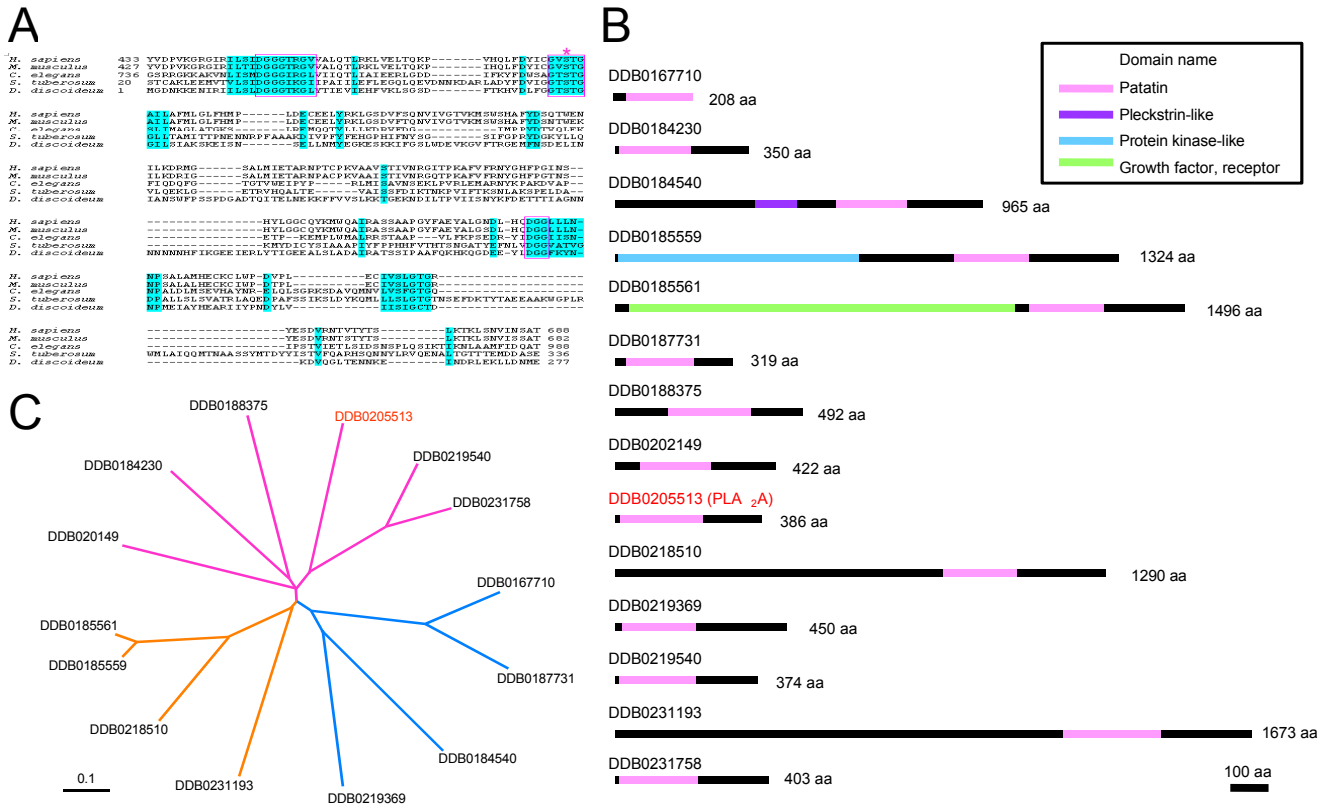
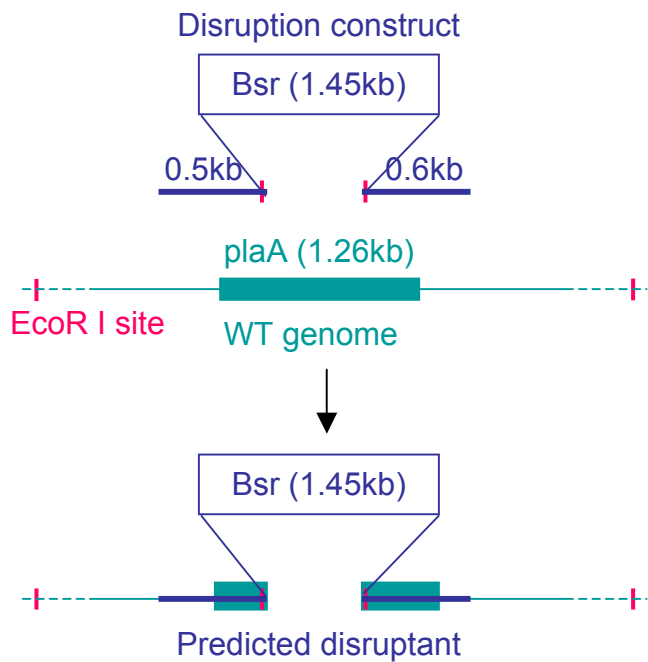


Figure S1. Sequence Analysis of the PLA₂ Family in *D. discoideum*

(A) Alignment of patatin and iPLA₂. The patatin domain is evolutionarily conserved from plants to animals. Consensus sequences are highlighted in blue. Residues that are important for catalytic activity for PLA₂ are boxed in red. Star indicated the catalytic Serine. (B) Domain structures of PLA₂s in *D. discoideum* are shown. Fourteen novel PLA₂s are identified in the genome database (the DictyBase, <http://www.dictybase.org>). Predicted domains are indicated by different colors: pink, patatin domain; purple, pleckstrin-like domain; blue, protein kinase-like domain; green, growth factor receptor domain. (C) Phylogenetic analysis of PLA₂ homologs in *D. discoideum*. Sequences are analyzed using Clustal W from EMBL-EBI.

A



B

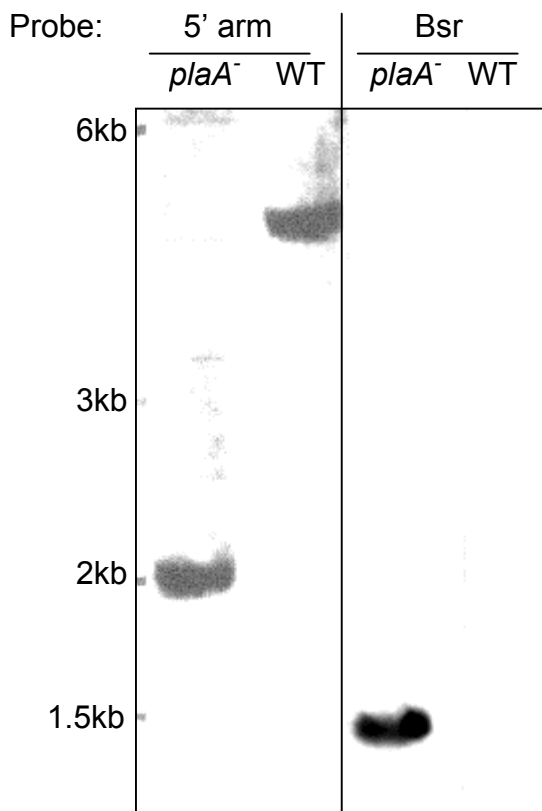


Figure S2. Disruption of PLA₂A

Transformants were picked at random and gene disruptants were identified by southern hybridization of several digests with different probes. (A) Strategy for disruption. A blasticidin resistant marker (Bsr) was inserted into middle of the gene, replacing part of the open reading frame. (B) Southern blotting to confirmation of disruption. Genomic DNA was prepared from wild type and *pla_{2a}⁻* cells and subjected to EcoR I digestion. DNA samples were transferred onto membranes and hybridized with two different probes. With the 5' region as a probe, the *pla_{2a}⁻* cells showed a 2.1 kb band while wild type cells showed a 4.9 kb band. With Bsr as a probe, the *pla_{2a}⁻* cells showed a 1.5 kb band while wild type cells showed no band.