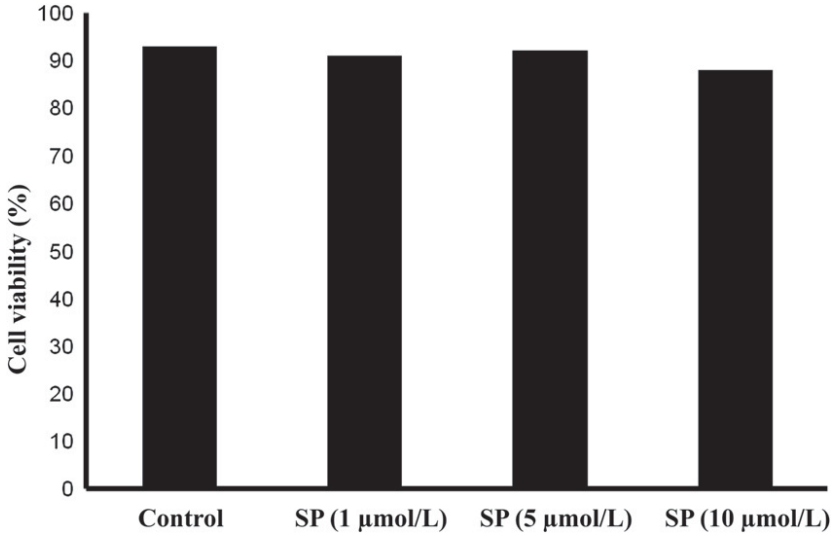


**FIG E1.** Viability testing during human mast cell degranulation. LAD2 cells were stimulated with different concentrations of SP for 30 minutes. Cell viability was tested by using Trypan blue exclusion.

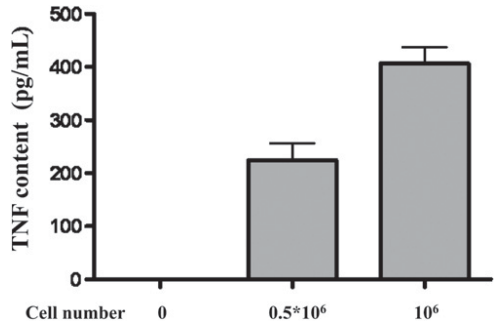


**FIG E2.** Detection of preformed TNF in unstimulated LAD2 mast cells. Unstimulated LAD2 cells were lysed and sonicated to release all intracellular components. TNF concentration was determined by ELISA (n = 3).

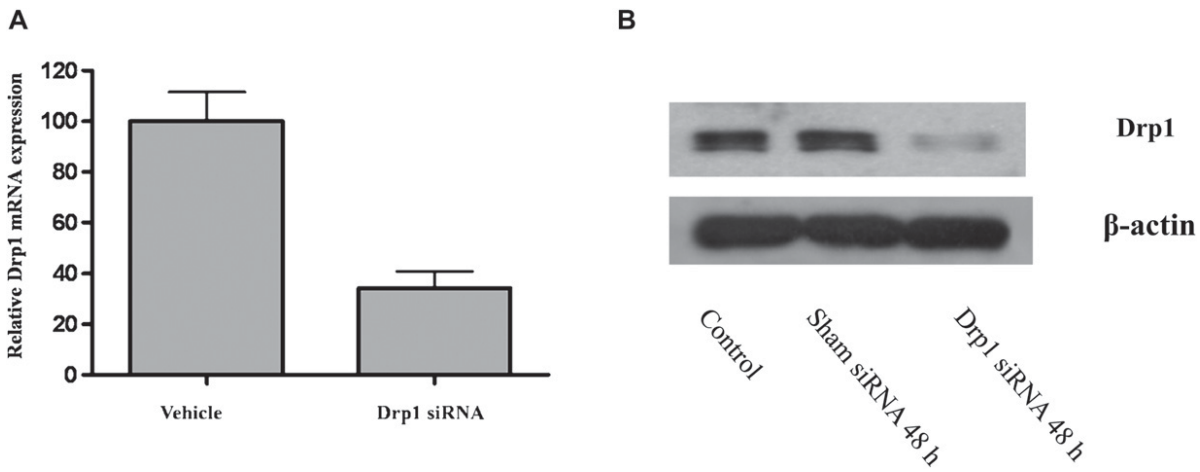


**FIG E3.** Decrease in Drp1 mRNA **(A)** and protein **(B)** after siRNA treatment of LAD2 cells. LAD2 cells were transfected with Drp1 siRNA for 5 hours and incubated in growth medium for 6 hours. *A,* TaqMan PCR was performed (n = 3). *B,* Western blot analysis of the Drp1 protein 48 hours after siRNA treatment.

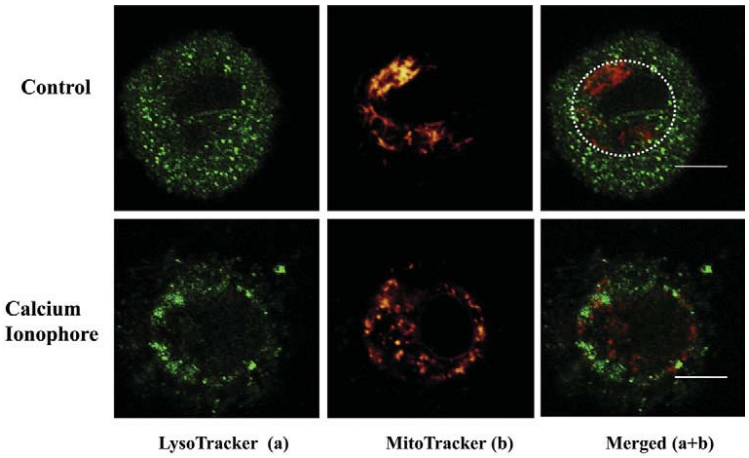


**FIG E4.** Effect of the cation ionophore A23187 on LAD2 mitochondrial translocation. LAD2 cells were either unstimulated *(upper panels)* or stimulated with calcium ionophore A23187 (1 μmol/L) for 30 minutes *(lower panels)*. Cells were stained with LysoTracker *(a, green)* and MitoTracker *(b, red)*. *Bars* equal 5 μm.

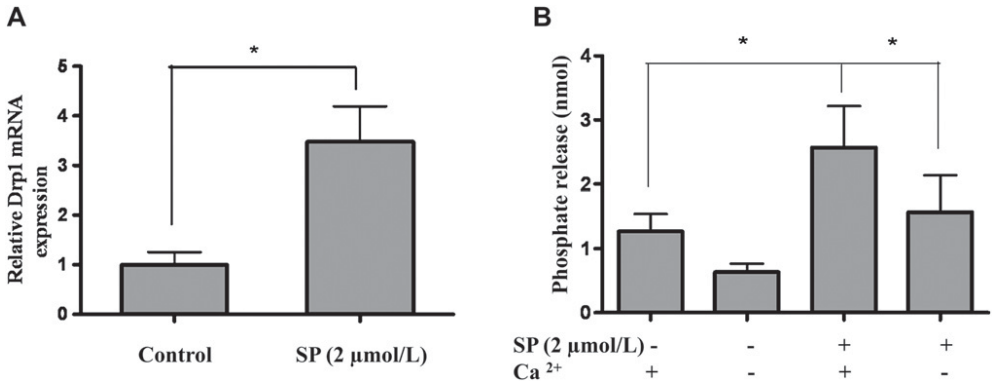


**FIG E5.** Increased gene expression of Drp1 **(A)** and calcineurin activity **(B)** after SP stimulation of LAD2 cells for 6 hours. *A,* Drp1 gene expression in SP-stimulated LAD2 cells for 6 hours. *B,* LAD2 cells were stimulated by SP for 30 minutes in either calcium or calcium-free medium. Calcineurin activity was measured as phosphate release following the protocol provided (n = 3; **P* < .05). There was no statistical difference in calcineurin activity between control and SP stimulation in the absence of calcium.

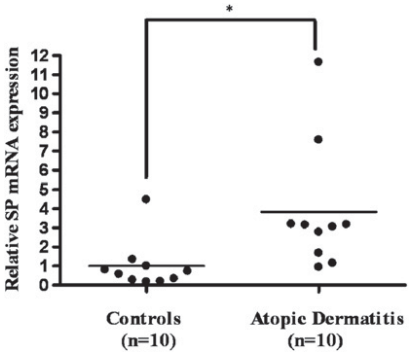


**FIG E6.** Increased TAC1 gene expression in lesional skin from patients with AD compared with controls. Gene expression of TAC1 (controls, n = 10; patients, n = 10). Relative quantities of mRNA expression were measured by quantitative real-time PCR and normalized to GAPDH (*$P < .05$; *horizontal bars* indicate the means).

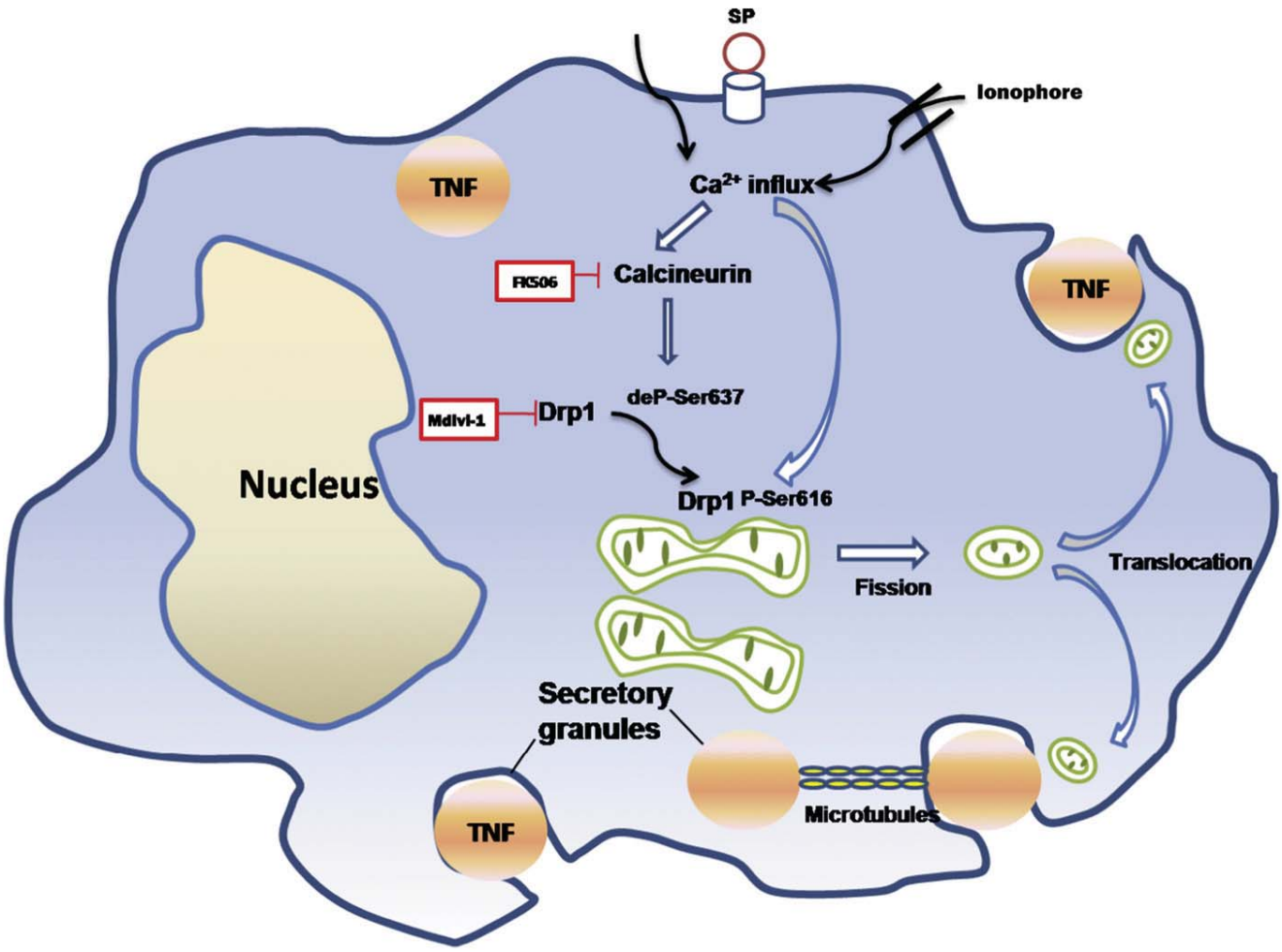


**FIG E7.** Diagrammatic representation of the proposed intracellular steps involved in mitochondrial fission and translocation during human mast cell degranulation. *deP,* Dephosphorylated.