

**PIM1 Promotes Survival of Cardiomyocytes by Upregulating c-Kit
Protein Expression**

Cells

David E Ebeid ^{1*}, Fareheh Firouzi^{1*}, Carolina Y Esquer¹, Julian M
Navarrete¹, Bingyan J Wang¹, Natalie A Gude¹, Mark A Sussman^{1#}

¹ Department of Biology, San Diego State University, San Diego, CA,
USA

*** D.E. and F.F. contributed equally to this manuscript.**

Correspondence:

Mark A. Sussman, PhD

(619)-594-2983

heartman4ever@icloud.com

Supplemental Figure 1

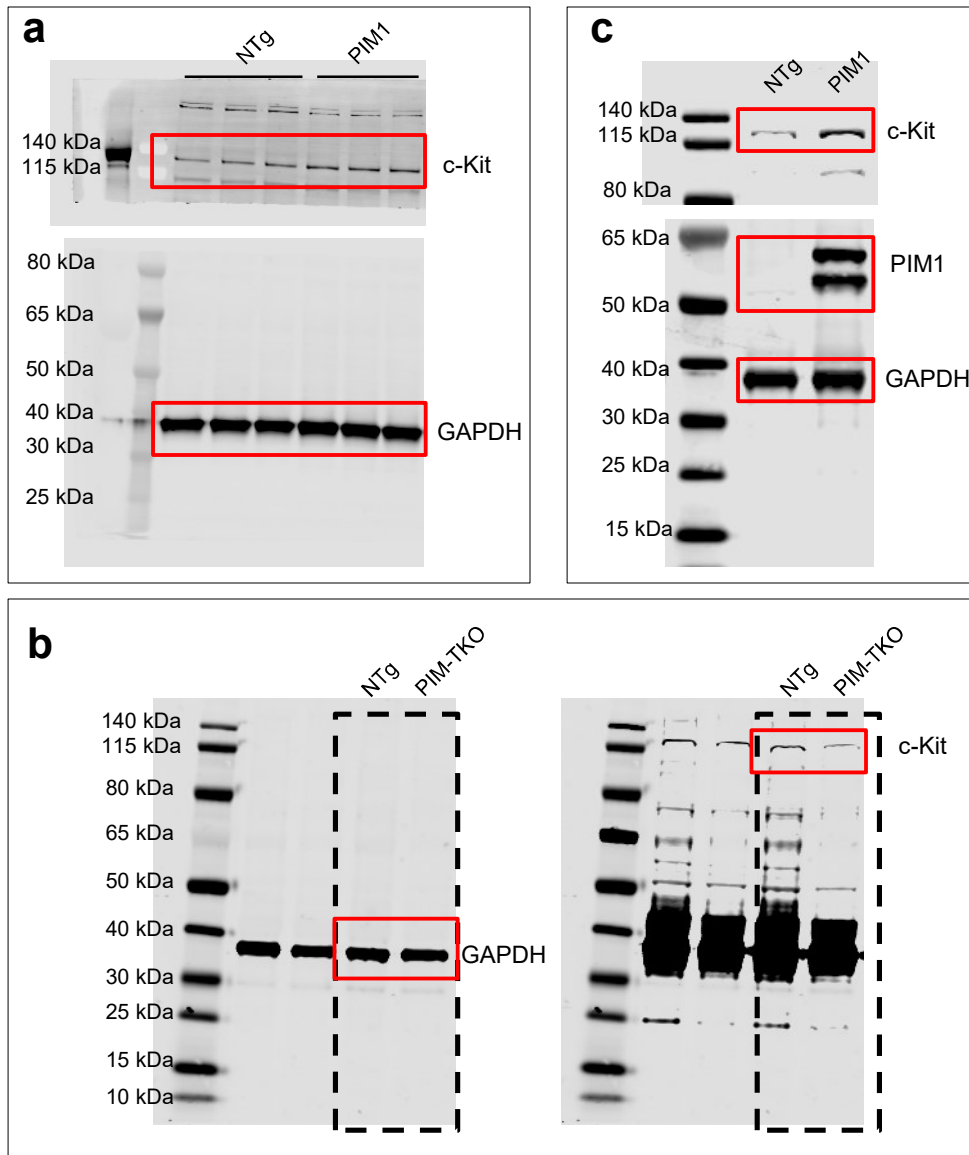


Fig S1: **a** Full blot of cropped image presented in Fig 1a, **b** Fig 1b, and **c** Fig 1c of the manuscript.

Supplemental Figure 2

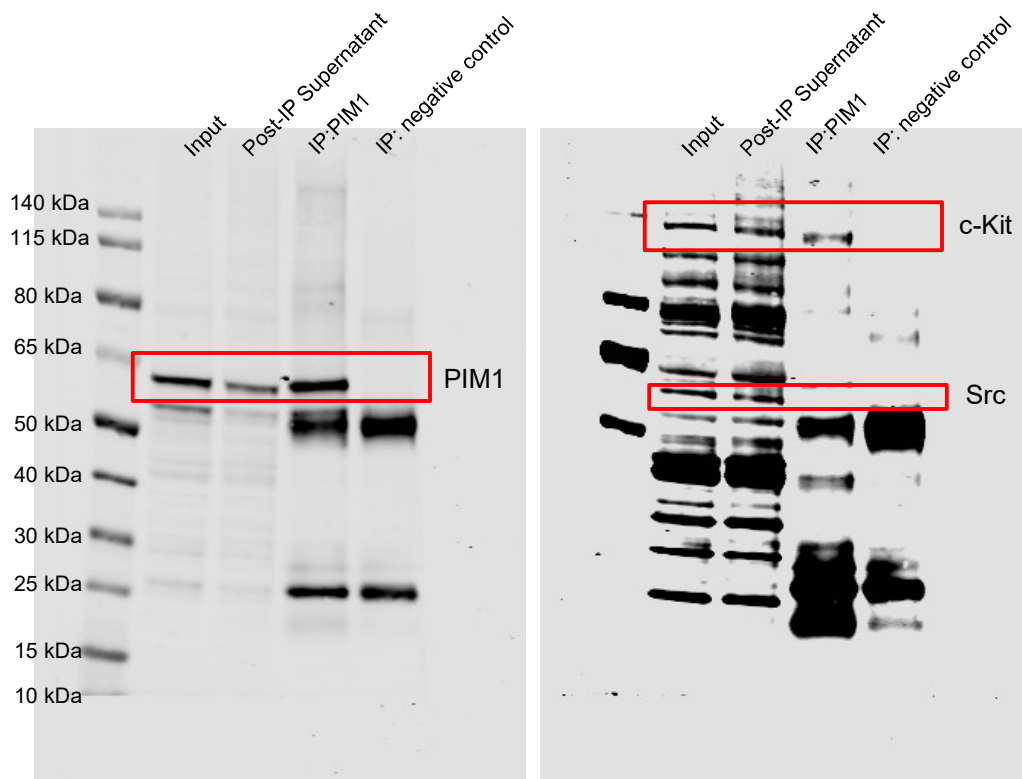


Fig S2: Full blot of cropped image presented in Fig 2a of the manuscript.

Supplemental Figure 3

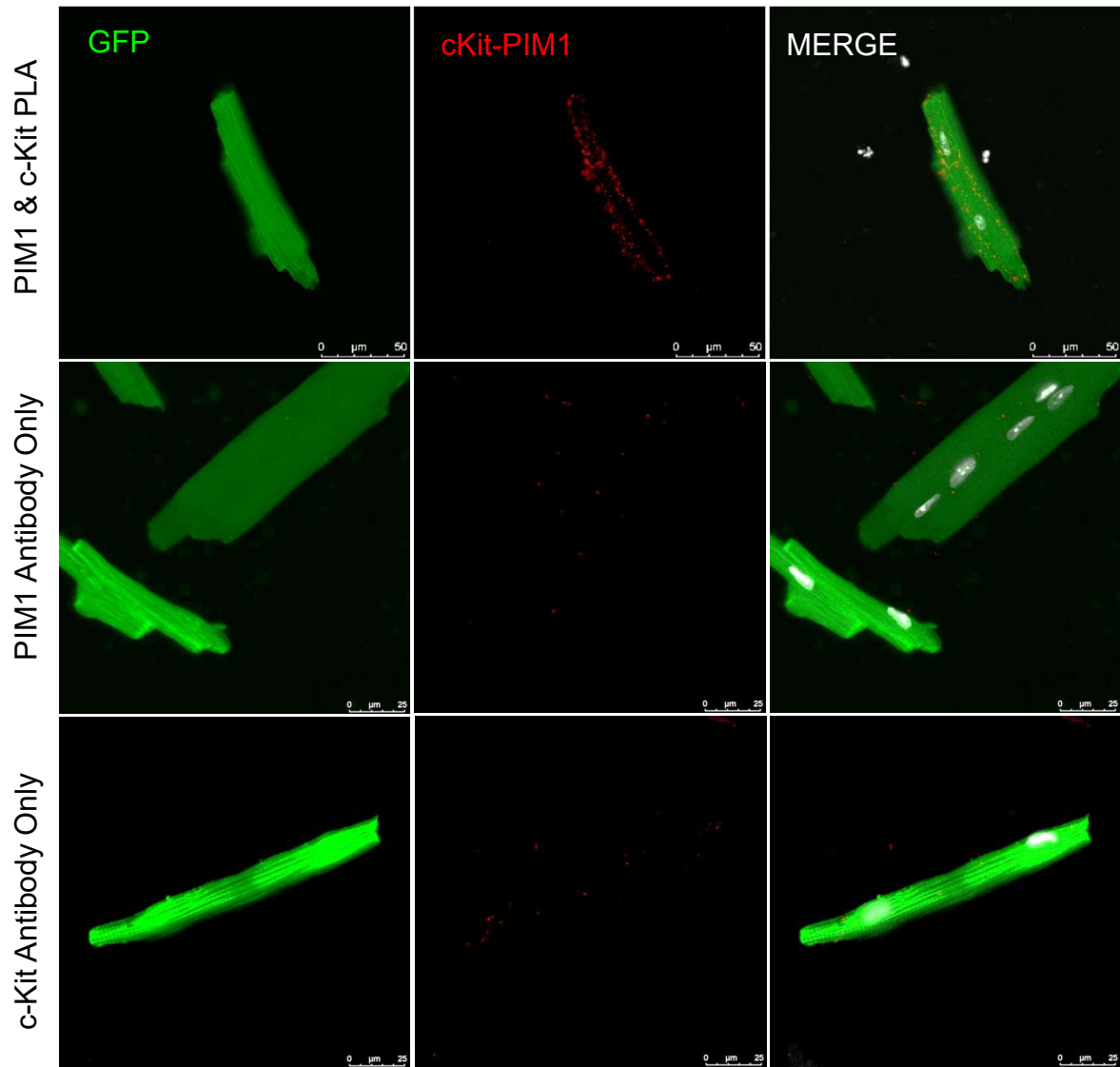
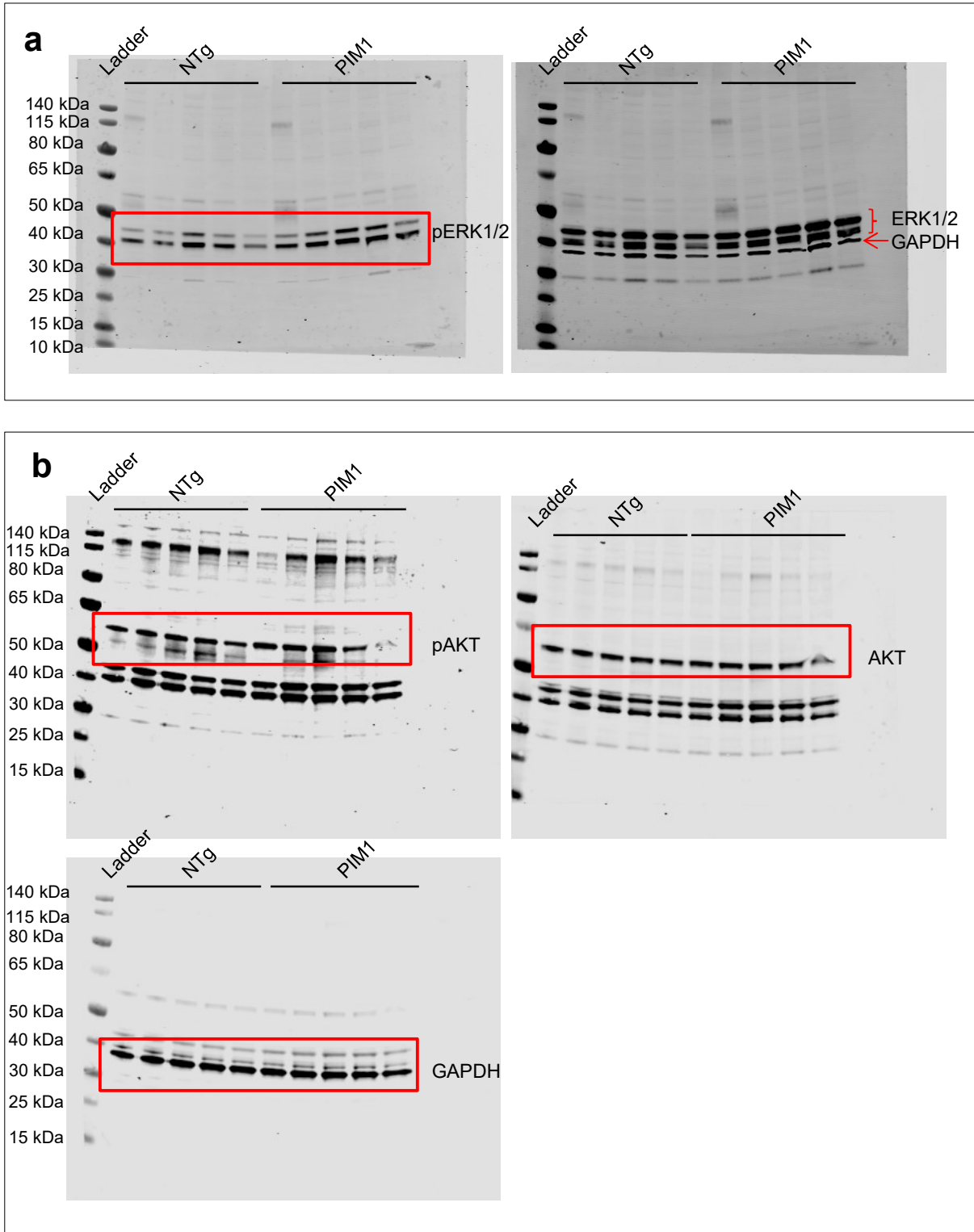


Fig S3: Negative controls for the Proximity Ligation Assay. Endogenous GFP is shown in green, the PLA signal is shown in red and DAPI is shown in gray.

Supplemental Figure 4



Supplemental Figure 5

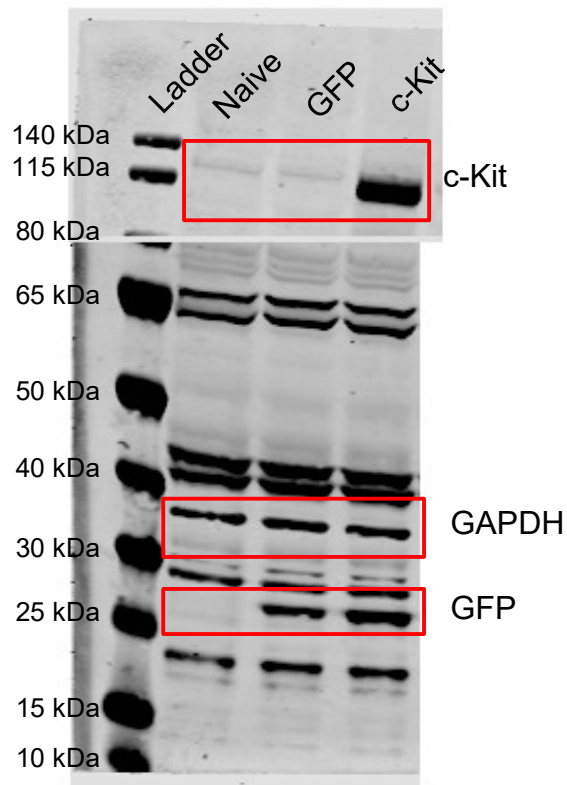


Fig S5: Full blot of cropped image presented in Fig 4b of the manuscript.

Supplemental Figure 6

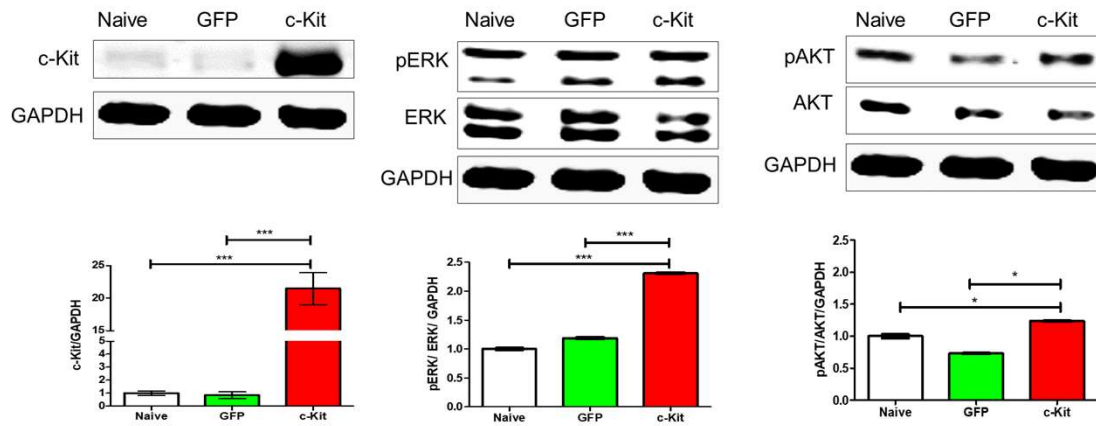


Fig S6: Immunoblot analysis of c-Kit, activated ERK1/2 and activated AKT in naïve and virally transduced cardiomyocytes with quantification shown below. Error bars represent SEM, * $p < 0.05$, ** $p < 0.01$ and *** $p < 0.001$ as measured by two-way ANOVA, multiple comparison with Tukey.

Supplemental Figure 7

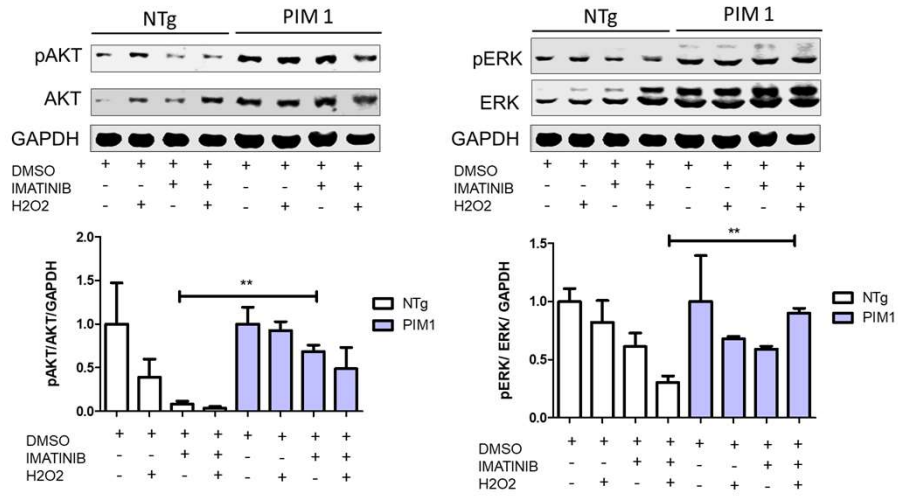


Fig S7: Immunoblot analysis of activated ERK1/2 and activated AKT in NTg and PIM1 overexpressing cardiomyocytes in response to oxidative stress in presence and absence of Imatinib. Quantification is shown below. Error bars represent SEM, ** $p < 0.01$ as measured by two-way ANOVA, multiple comparison with Tukey.