

## SUPPLEMENTAL DATA

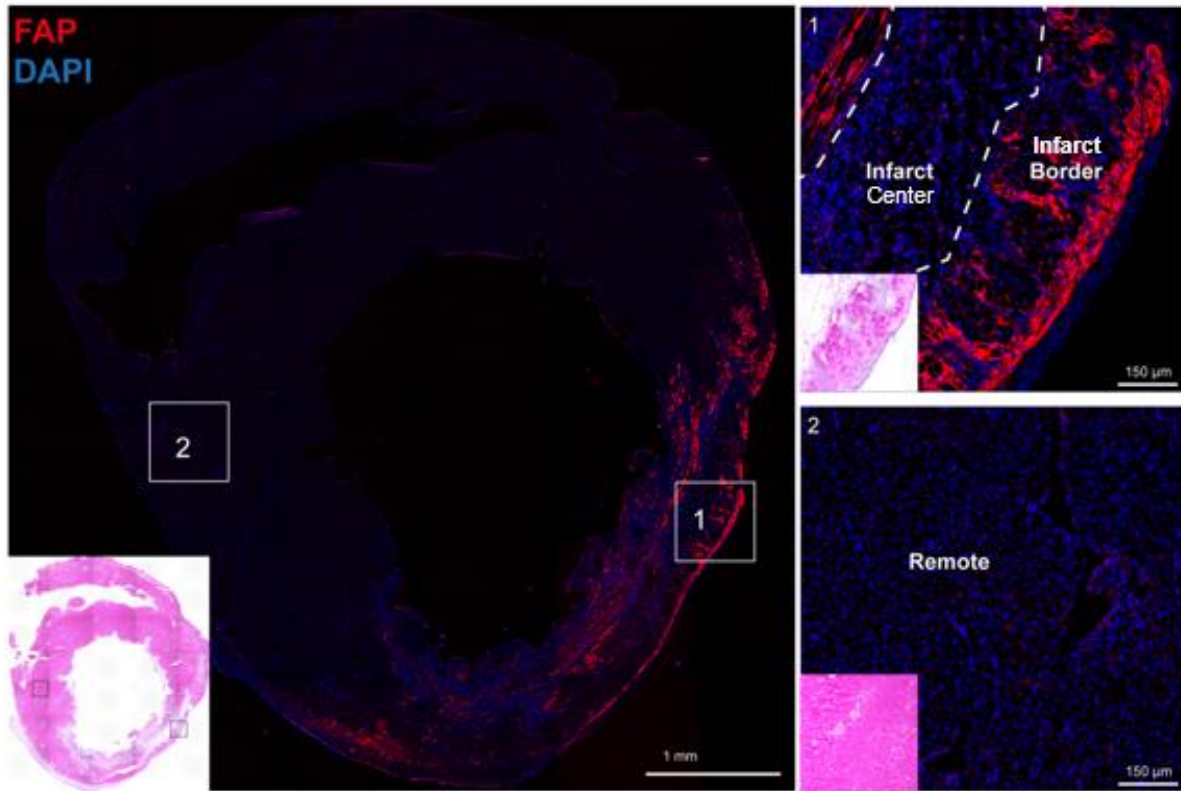
**Supplemental Table 1.** The PET/CT-derived  $^{68}\text{Ga}$ -FAPI-04 uptake (1 h p.i.) in the heart and neighbouring organs 6 days after coronary ligation (n=6).

<b>Region</b>	<b>%ID/g</b>	<b>Infarct-to-organ ratios</b>
<b>Infarcted myocardium</b>	$1.0 \pm 0.2$	1
<b>Non-infarcted myocardium</b>	$0.2 \pm 0.1$	$6 \pm 2$
<b>Blood</b>	$0.24 \pm 0.03$	$4 \pm 1$
<b>Liver</b>	$0.09 \pm 0.04$	$11 \pm 3$
<b>Lung</b>	$0.09 \pm 0.01$	$9 \pm 1$

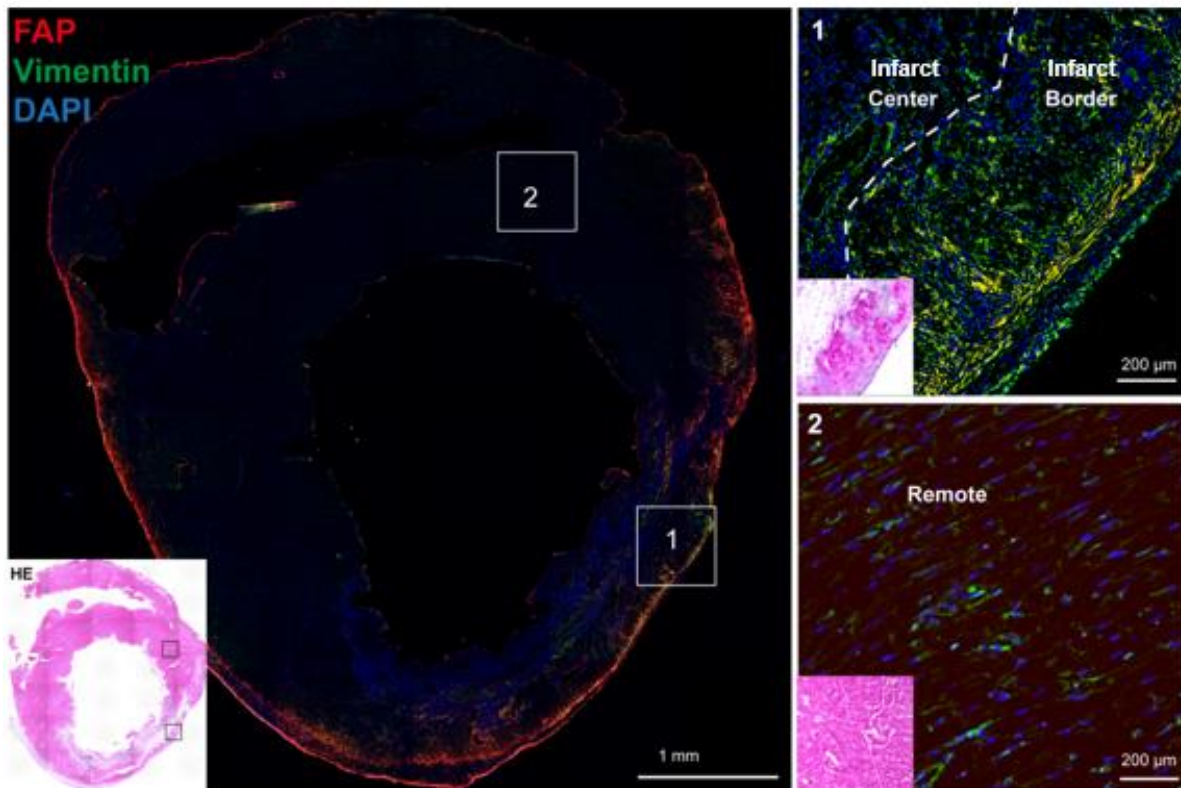


**Supplemental Figure 1.** In vivo imaging of  $^{68}\text{Ga}$ -FAPI-04 uptake. (A) Sagittal, (B) axial, and (C) coronal PET/CT images of a rat 1 h p.i. of  $^{68}\text{Ga}$ -FAPI-04, 6 days after coronary ligation. The images demonstrate rapid clearance of  $^{68}\text{Ga}$ -FAPI-04 from the body via renal filtration. Because of the small field of view (12.7 cm) for Siemens Inveon PET/CT, the entire length of the animal anatomy is not covered.

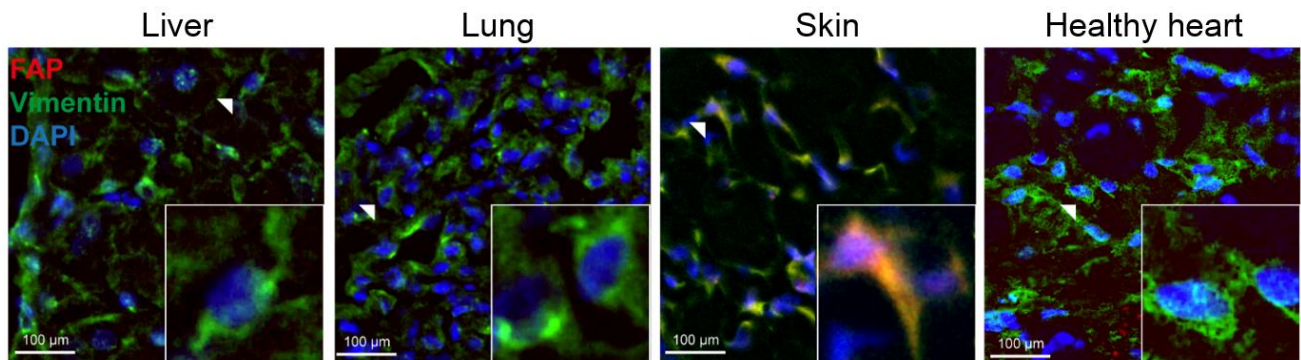
**A**



**B**



**Supplemental Figure 2.** Composite tile image of an entire infarcted rat heart slice and higher magnification images showing the location of FAP<sup>+</sup> (A) and FAP<sup>+</sup> vimentin<sup>+</sup> (B) fibroblasts. FAP<sup>+</sup> vimentin<sup>+</sup> activated fibroblasts were especially accumulated within the border zone connective tissue compared to the infarct centre and remote area, while FAP<sup>-</sup> vimentin<sup>+</sup> fibroblasts were abundant in the infarct centre or distant remote zone of the left ventricle. Overlapping domains of expression (FAP + vimentin) are shown in yellow. DAPI stained nuclei are shown in blue.



**Supplemental Figure 3.** FAP expression in normal tissue-resident fibroblasts. FAP<sup>+</sup> cells were scarce among vimentin<sup>+</sup> fibroblasts in liver, lung, and heart of control healthy animals. FAP<sup>+</sup> vimentin<sup>+</sup> fibroblasts were observed in skin. Overlapping domains of expression are shown in yellow. DAPI stained nuclei are shown in blue.