

# Supplementary Materials

## **AIBP regulates metabolism of ketone and lipids but not mitochondrial respiration**

Jun-dae Kim <sup>1,†</sup>, Teng Zhou <sup>1,†</sup>, Aijun Zhang <sup>2,3</sup>, Shumin Li <sup>2</sup>, Anisha A. Gupte <sup>2,3</sup>, Dale J. Hamilton <sup>2,3,4</sup> and Longhou Fang <sup>1,3,4,\*</sup>

<sup>1</sup> Center for Cardiovascular Regeneration, Department of Cardiovascular Sciences, Houston Methodist Research Institute, 6550 Fannin St., Houston, TX 77030, USA

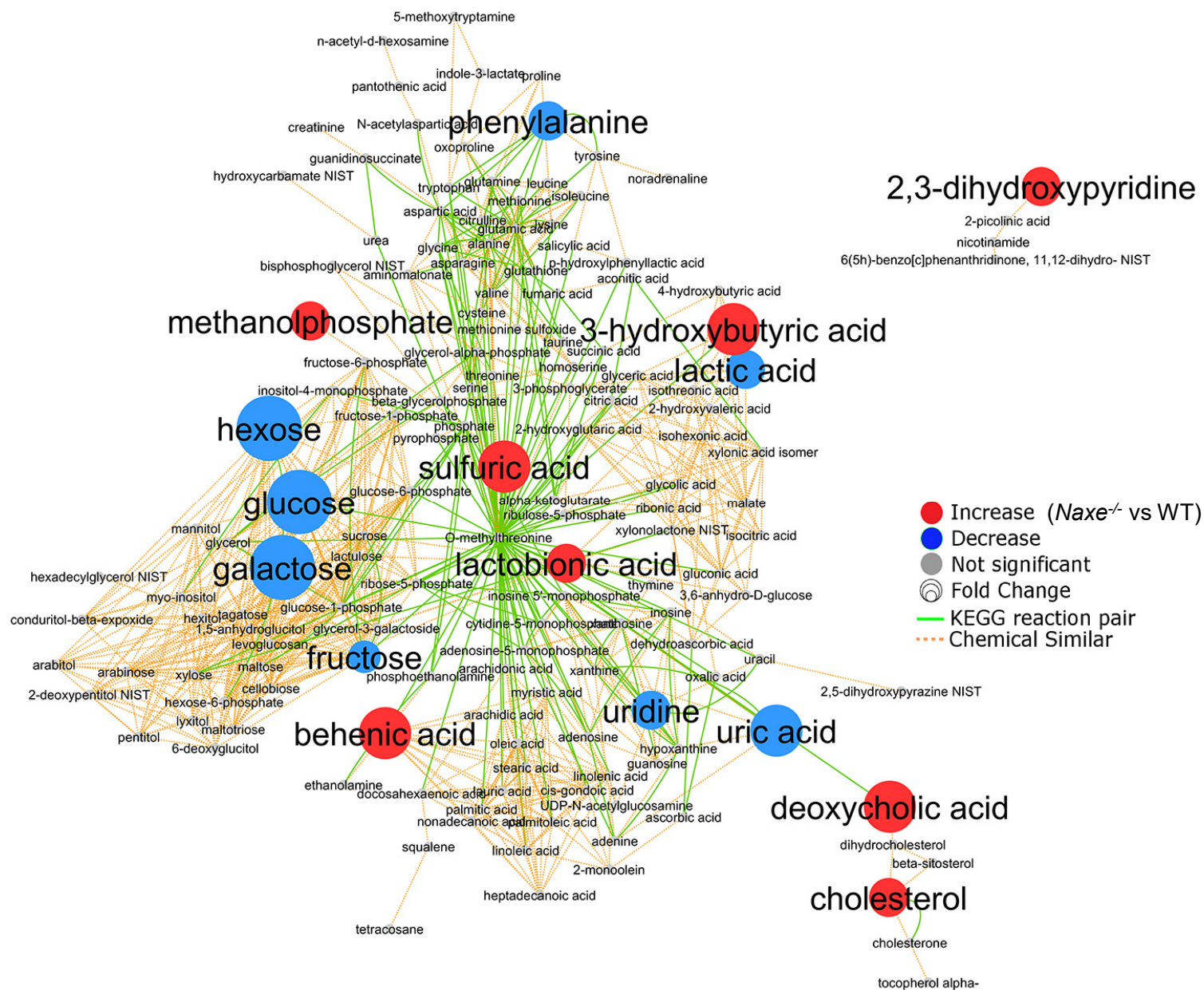
<sup>2</sup> Center for Bioenergetics, Houston Methodist Research Institute, 6550 Fannin St., Houston, TX 77030, USA

<sup>3</sup> Department of Medicine, Houston Methodist, Weill Cornell Medicine Affiliate, 6550 Fannin St., Houston, TX 77030, USA

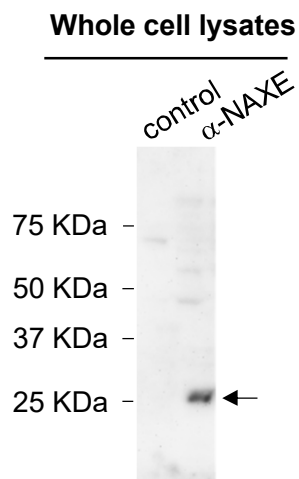
<sup>4</sup> Weill Cornell Medical College, Cornell University, 407 E 61st St., New York, NY 10065, USA

\* Correspondence: [lhfang@houstonmethodist.org](mailto:lhfang@houstonmethodist.org); Tel.: +713-363-9012; Fax: +713-363-9782

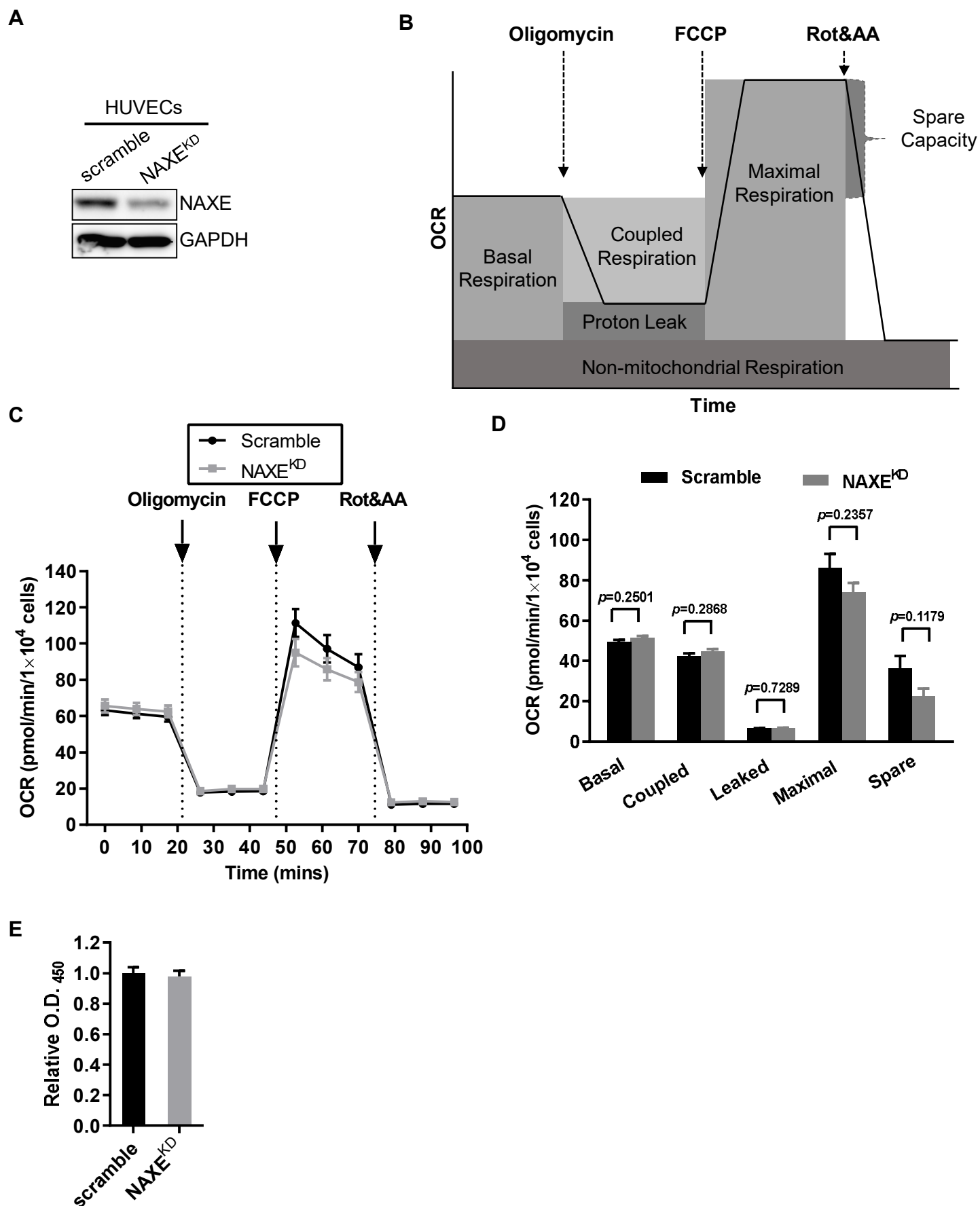
† These authors contributed equally to this work.



**Figure S1. Bioinformatics analysis highlighting AIBP-regulated metabolites.** The metabolites were analyzed at the west coast metabolomics center of UC Davis using their standard bioinformatics pipeline.



**Figure S2. Western blot analysis of HUVEC cell lysates using our home-made AIBP antibody.** HUVEC lysates were run on the gradient SDS PAGE, transferred to PVDF membrane, and immunoblotted using the purified anti-human NAXE antibody that was raised in rabbit.



**Figure S3. Mitochondrial respiration analysis of control and NAXE-deficient HUVECs using the Seahorse assay.** **A.** Western blot analysis of NAXE expression in control or NAXE knockdown (KD) HUVECs. **B.** Diagram illustrating the seahorse assay protocol. **C.** Measurements of oxygen consumption rate (OCR) in control and NAXE KD HUVECs. **D.** Bar chart showing the mitochondrial respiration changes. **E.** Analysis of cellular dehydrogenase activity using WST-8 colorimetric assay with a CCK-8 Assay.