

Hyperglycemia-induced P300/CBP acetyltransferase drives ZEB2-mediated pro-inflammatory macrophages and delays wound healing

Soumyajit Roy¹, Debarun Patra^{1,2}, Palla Ramprasad¹, Shivam Sharma³, Parul Katiyar⁴, Ashvind Bawa⁵, Kanhaiya Singh⁴, Kulbhushan Tikoo³, Suman Dasgupta⁶, Chandan K Sen⁴, Durba Pal^{1,4*}

¹ Department of Biomedical Engineering, Indian Institute of Technology Ropar, Rupnagar, Punjab, India

² Stanford Cardiovascular Institute, Stanford University School of Medicine, Stanford, CA, USA

³ Department of Pharmacology and Toxicology, National Institute of Pharmaceutical Education and Research, S.A.S. Nagar, Punjab, India

⁴ Department of Surgery, McGowan Institute for Regenerative Medicine, University of Pittsburgh School of Medicine, 450 Technology Drive, Pittsburgh, PA, USA

⁵ Department of General Surgery, Dayanand Medical College & Hospital, Ludhiana, Punjab, India

⁶ Department of Molecular Biology and Biotechnology, Tezpur University, Napaam, Sonitpur, Assam, India

*Corresponding authors: Durba Pal; E-mail: durba.pal@iitrpr.ac.in

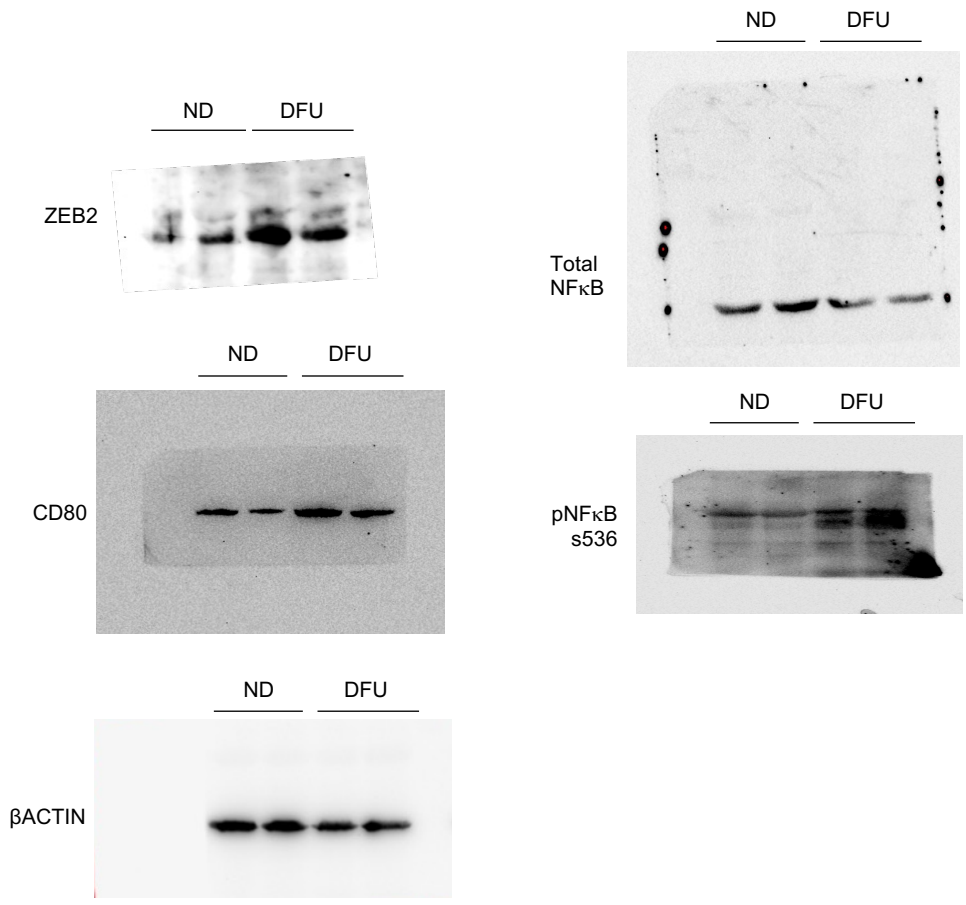
Department of Biomedical Engineering, S. S. Bhatnagar Block,
Indian Institute of Technology Ropar,

Rupnagar-140001, Punjab, India

ORCID: 0000-0001-7672-3529, Ph: (+91) 01881-23-2506

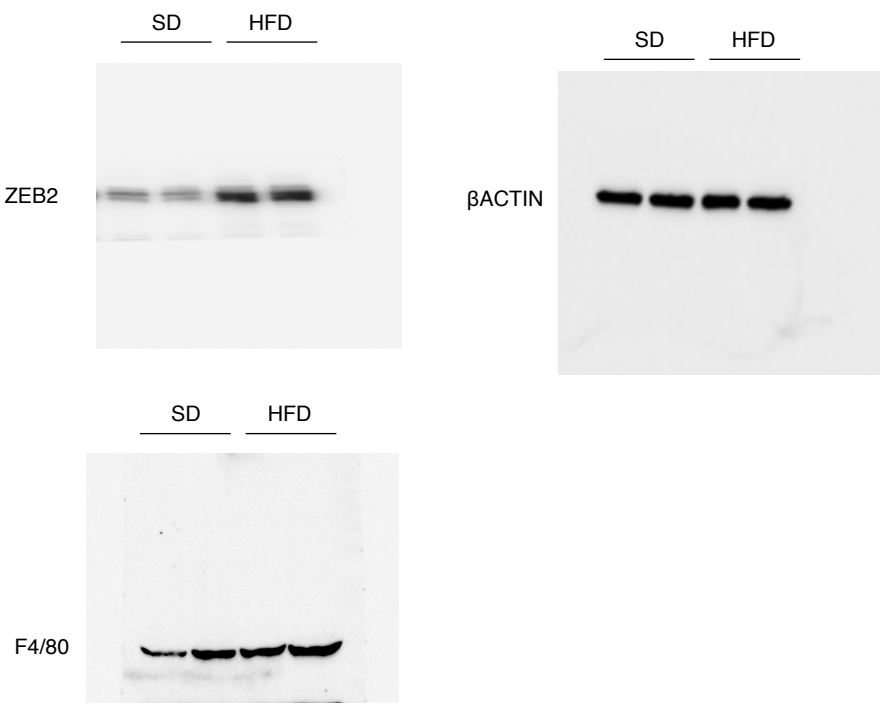
File for unedited western blot and gel

Full unedited blot for Figure 1.B.



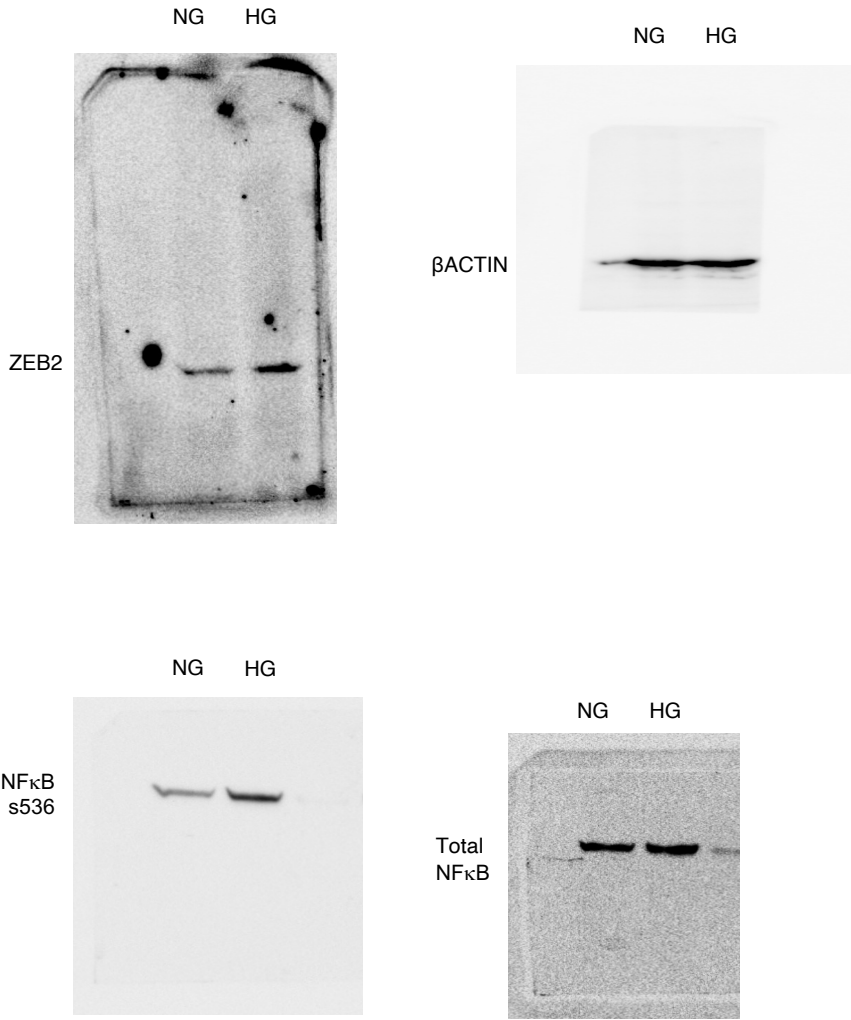
Immunoblotting images of ZEB2, CD80, β ACTIN, pNF κ B s536, and total NF κ B protein in wound tissue macrophages isolated from ND and DFU patients' wound samples. ND, non-diabetic; DFU, diabetic foot ulcer

Full unedited blot for Figure 1.D.



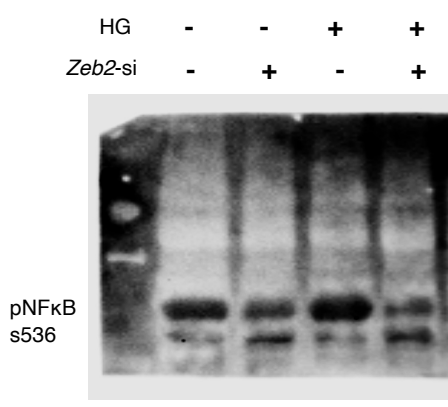
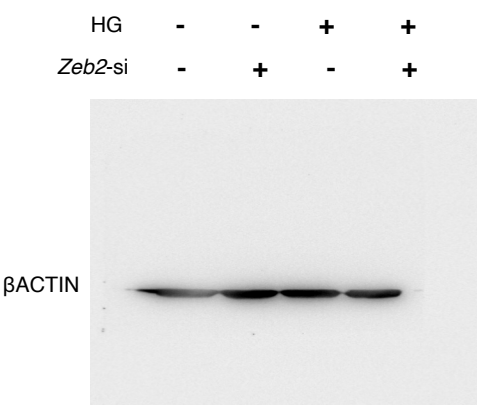
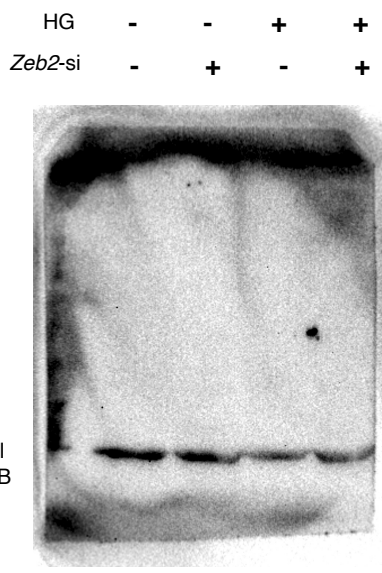
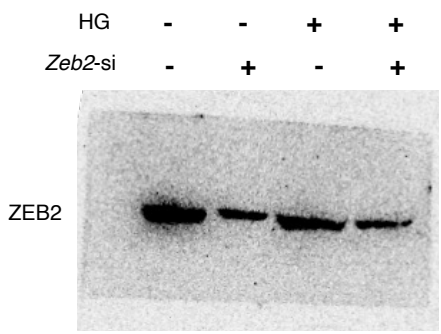
Immunoblotting images of ZEB2, β ACTIN, and F4/80 protein in SD and HFD mice wound tissue. SD, standard diet; HFD, high fat diet.

Full unedited blot for Figure 1.E.



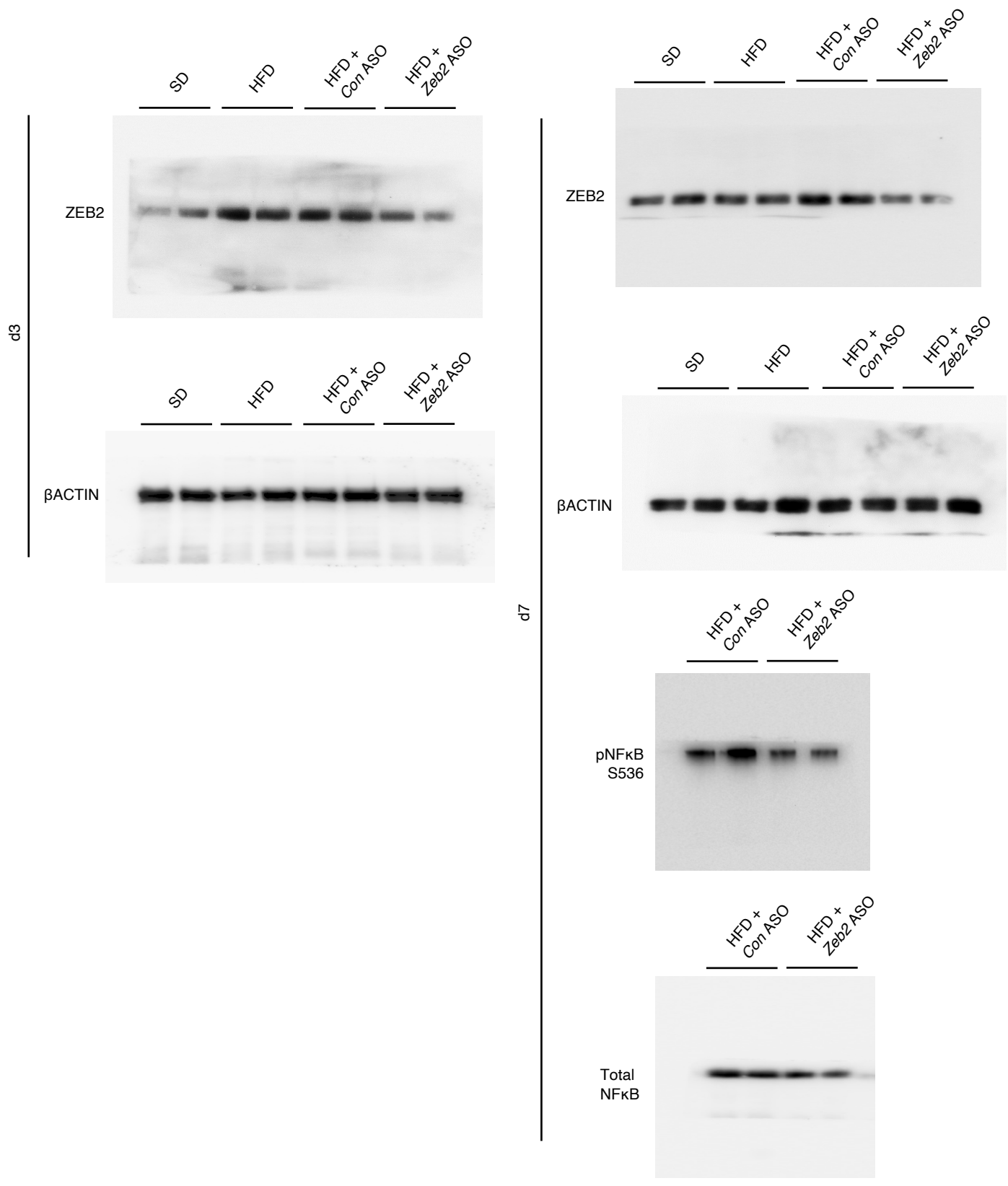
Immunoblotting images of ZEB2, β ACTIN, and pNF κ B s536, and total NF κ B protein in NG and HG treated Raw264.7 macrophages. NG, normoglycemia; HG, hyperglycemia.

Full unedited blot for Figure 3.G.



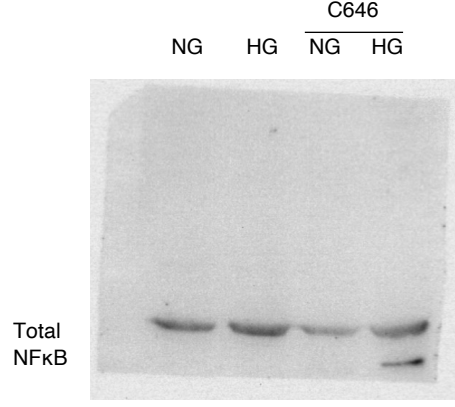
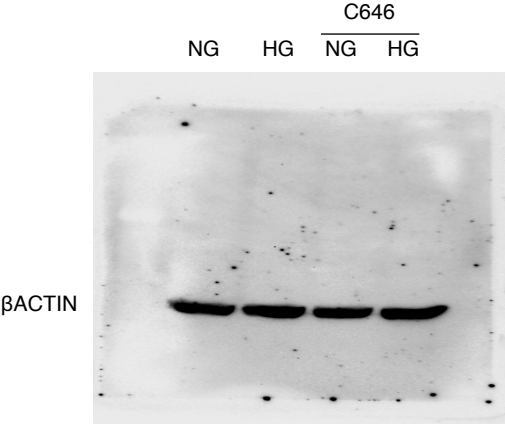
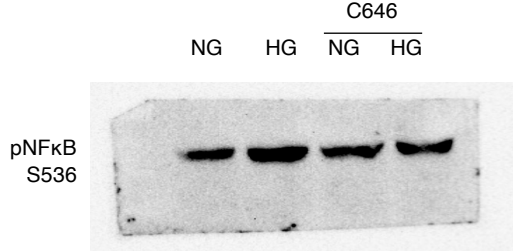
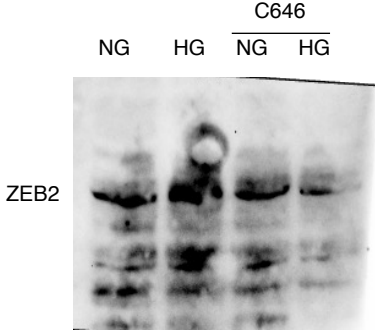
Immunoblotting images of ZEB2, βACTIN, pNFκB s536, and total NFκB protein in NG and HG Raw264.7 macrophages after with/ without Zeb2-si treatment. NG, normoglycemia; HG, hyperglycemia.

Full unedited blot for Figure 4.C.



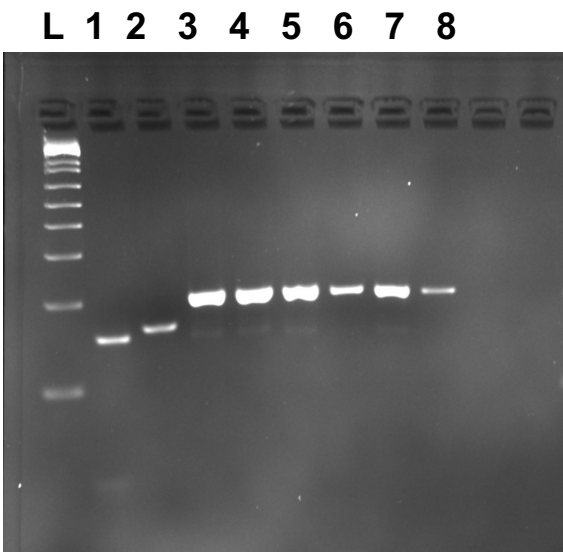
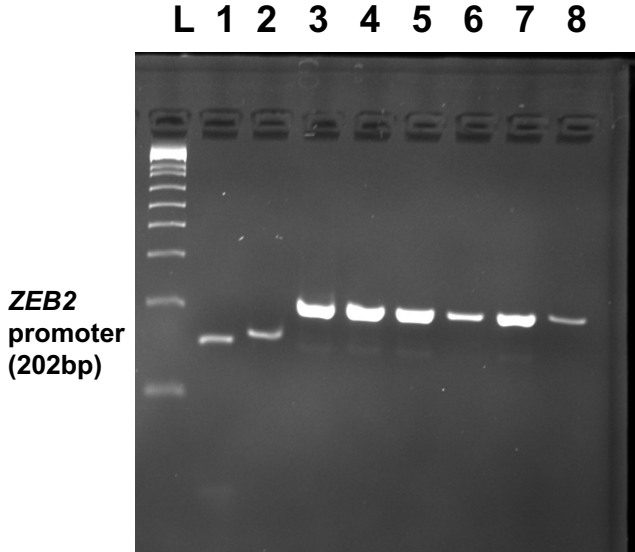
Immunoblotting images of ZEB2, βACTIN, pNFκB s536, and total NFκB protein in SD, HFD, HFD + *Con* ASO, and HFD + *Zeb2* ASO mice wound tissue at d3 and d7. SD, standard diet; HFD, high fat diet.

Full unedited blot for Figure 5.B.

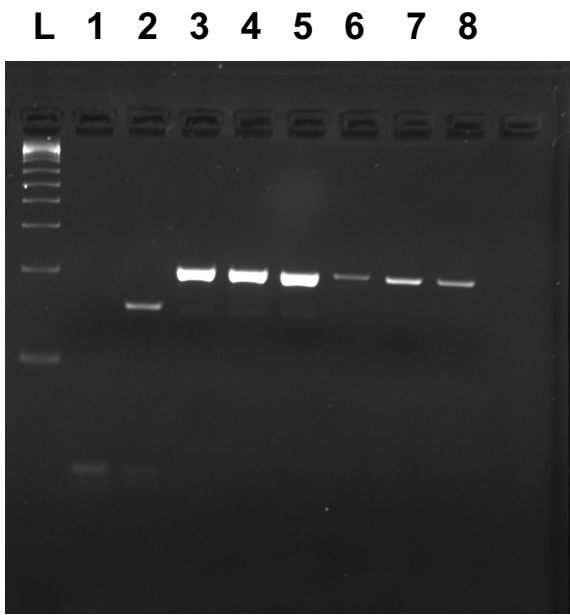
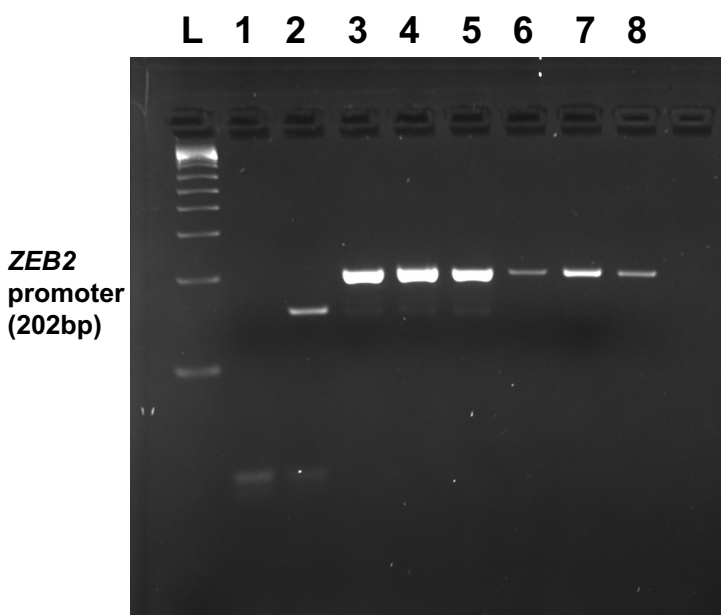


Immunoblotting images of ZEB2, βACTIN, pNFκB s536, and total NFκB protein in NG and HG Raw264.7 macrophages after treating with/without C646. NG, normoglycemia; HG, hyperglycemia.

Full unedited blot for Figure 5.D.



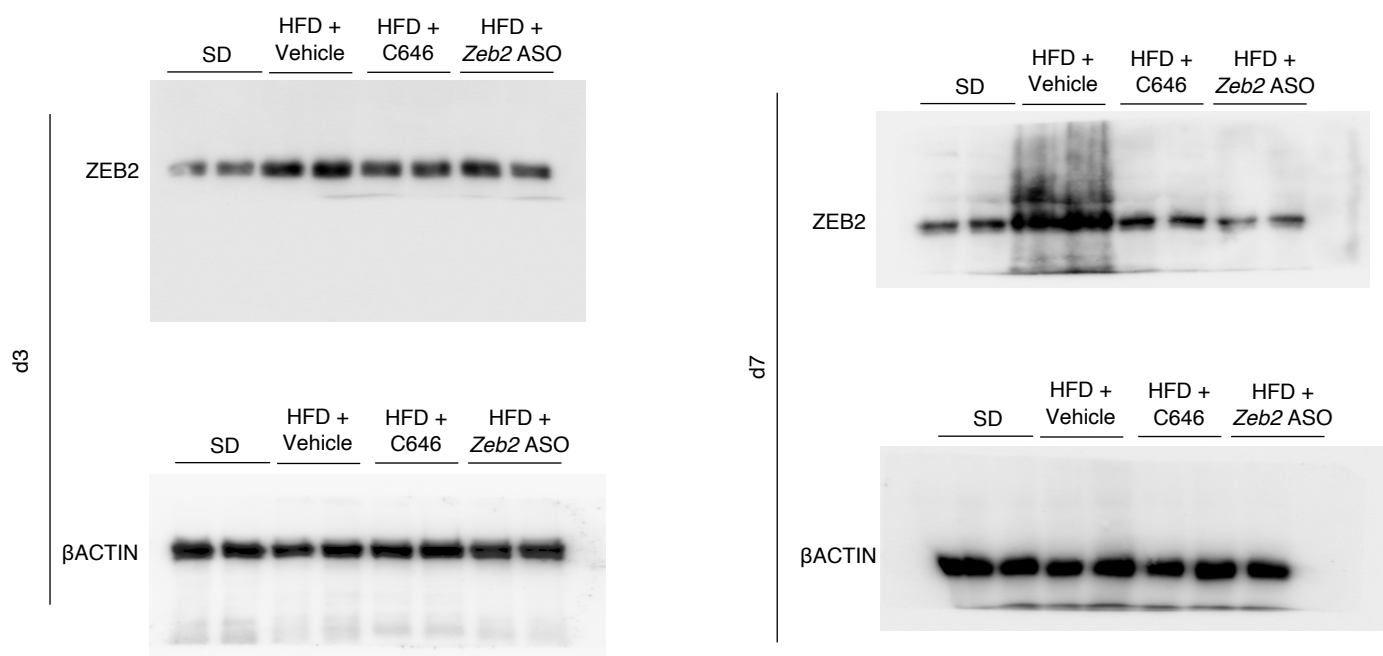
L-1Kb Ladder
 1- Negative control
 2- Positive control
 3- Input NG
 4- Input Vehicle + HG
 6- Input C646 + HG
 5- IP H3K9 NG
 7- IP H3K9 Vehicle + HG
 8- IP H3K9 C646 + HG



L-1Kb Ladder
 1- Negative control
 2- Positive control
 3- Input NG
 4- Input Vehicle + HG
 5- Input C646 + HG
 6- IP H3K27 NG
 7- IP H3K27 Vehicle + HG
 8- IP H3K27 C646 + HG

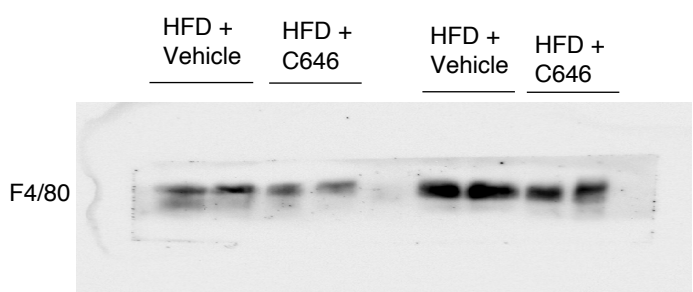
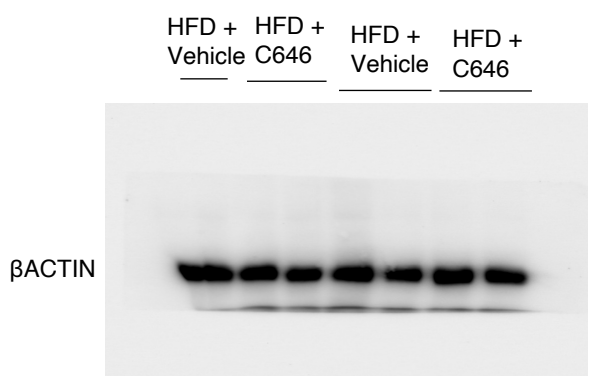
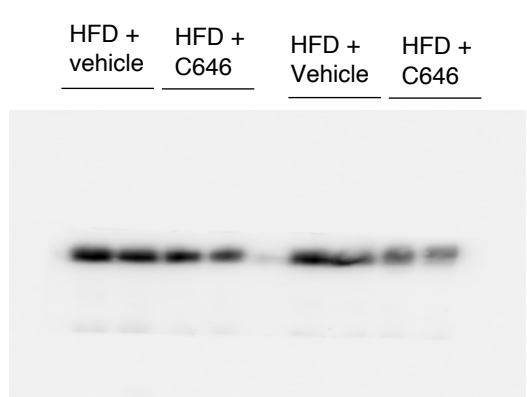
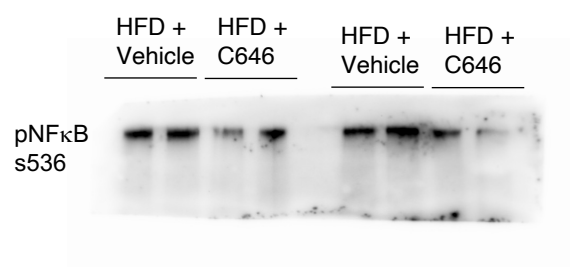
DNA agarose gel electrophoresis of *ZEB2* promoter in input and chromatin immuno-precipitation sample against H3K9Ac and H3K27Ac antibody from NG, HG + Vehicle, C646 + HG group. NG, normoglycemia; HG, hyperglycemia.

Full unedited blot for Figure 5.H.



Immunoblotting images of ZEB2, and β ACTIN in SD, HFD + Vehicle, HFD + C646, and HFD + *Zeb2* ASO mice wound tissue at d3 and d7. SD, standard diet; HFD, high fat diet.

Full unedited blot for Figure S6.F.



Immunoblotting images of ZEB2, and βACTIN in SD, HFD + Vehicle, HFD + C646, and HFD + *Zeb2* ASO mice wound tissue at d7. SD, standard diet; HFD, high fat diet.