

Supplemental table 1. Primer sequences used for RT-PCR analysis

Gene name	Access number	PCR product size (nucleotides)	Primer sequence
ANG	NM_001145 (<i>Homo sapiens</i>)	191	F 5'-tgtcctgccggttctgcgg-3' R 5'-ccggcctgtggttgcat-3'
ATF6	NM_007348 (<i>Homo sapiens</i>)	232	F 5'-ccagcagcacccaagactcaaaca-3' R 5'-gtgtgactccccagcaacagc-3'
bFGF	NM_002006 (<i>Homo sapiens</i>)	221	F 5'-agcgacctcatcaag-3' R 5'-cgttcagtgccacatacc-3'
CHOP	NM_004083 (<i>Homo sapiens</i>)	170	F 5'-tggaagcctggtatgaggac-3' R 5'-tgtgacctctgctggttctg-3'
GLUT1	NM_006516 (<i>Homo sapiens</i>)	291	F 5'-gctacaacactggagtcatc-3' R 5'-ggatcagcatctcaaaggac-3'
GRP78	NM_005347 (<i>Homo sapiens</i>)	200	F 5'-ggtgaaagaccccagacaaa-3' R 5'-gtcaggcgattctggtcatt-3'
IRE1 α	NM_001433 (<i>Homo sapiens</i>)	237	F 5'-agagaggcgggagagccgtg-3' R 5'-cgaggagggtggggaaagcga-3'
PDGF-B	NM_002608 (<i>Homo sapiens</i>)	116	F 5'-ccgccagcgcccattttca-3' R 5'-ctttcagcgaggctggaggg-3'
PERK	NM_004836 (<i>Homo sapiens</i>)	175	F 5'-caggcaaggaaggagtctg-3' R 5'-aacaactcaaagccaccac-3'
PFKFB3	NM_004566 (<i>Homo sapiens</i>)	253	F 5'-ggtgtgcgacgaccctac-3' R 5'-gtacacgatcggcctctg-3'
RPL13A	NM_012423 (<i>Homo sapiens</i>)	124	F 5'-cctggaggagaagaggaaagaga-3' R 5'-gaggacctctgtgtattgtcaa-3'
VEGF-A	NM_001171623 (<i>Homo sapiens</i>)	144	F 5'-gaaggaggagggcagaatc-3' R 5'-cacacaggatggcttgaag-3'
sXBP1	NM_005080 (<i>Homo sapiens</i>)	117	F 5'-gcaggtgcaggcccagttgt-3' R 5'-tgggtccaagttgtccagaatgc-3'
ATF4	NM_024403 (<i>Rattus norvegicus</i>)	206	F 5'-acagcgaagtgttggcgggg-3' R 5'-ggcatcctcctgccggtgt-3'
CHOP	NM_024134 (<i>Rattus norvegicus</i>)	236	F 5'-cgacagagccaaaataacagc-3' R 5'-ggatgcagggtcaagagtgtg-3'
HERP	NM_053523 (<i>Rattus norvegicus</i>)	110	F 5'-agaactgcggatgaatgc-3' R 5'-gaggaaaacggaaaatgtcg-3'
PDI	NM_012998 (<i>Rattus norvegicus</i>)	206	F 5'-tgaactggctgaagaaacg-3' R 5'-ggaaaacacatcgctattgg-3'
sXBP1	NM_001004210 (<i>Rattus norvegicus</i>)	158	F 5'-ctgagtccgcagcaggtgcag-3' R 5'-ctctgggaaggacatttga-3'

Supplemental table 2. Primary antibodies used for Western blot.

Antibody	Dilution	Reference
Anti-β Actin	1:1000	A2668 ¹
Anti-Angiogenin	1 :500	sc-9044 ²
Anti-ATF6	4 μ g/ml	IMG-273 ³
Anti-bFGF	1:500	05-118 ⁴
Anti-eIF2α	1 :1000	ab5369 ⁵
Anti-phospho-eIF2α	1:500	ab32157 ⁵
Anti-GRP78	1:1000	sc-1050 ²
Anti-HIF-1α	1:500	NB100-449 ⁶
Anti-IRE1α	1:500	3294 ⁷
Anti-PERK	1:500	3192 ⁷
Anti-VEGFA	1:500	sc-152 ²

¹ Sigma-Aldrich

² Santa Cruz Biotechnology

³ Imgenex

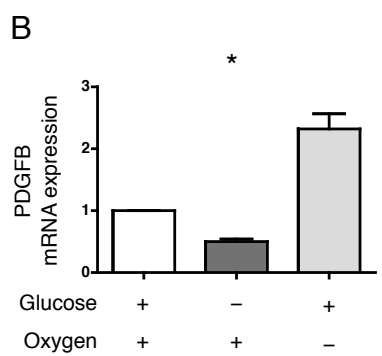
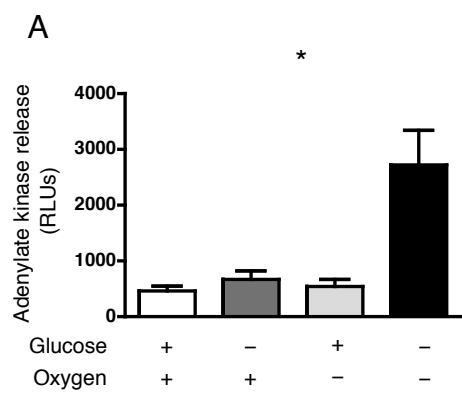
⁴ Millipore

⁵ Abcam

⁶ Novus Biologicals

⁷ Cell Signaling Technology

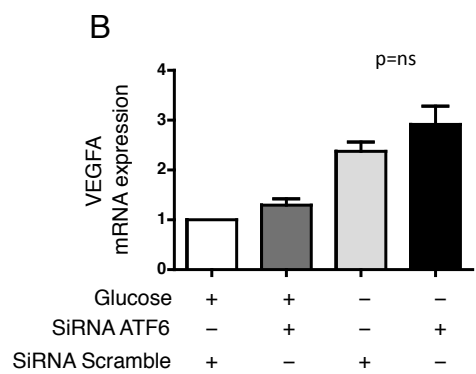
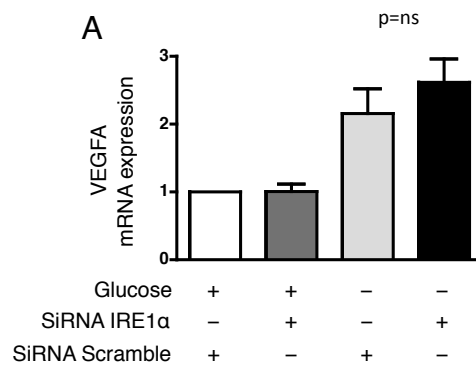
Supplemental Figure 1



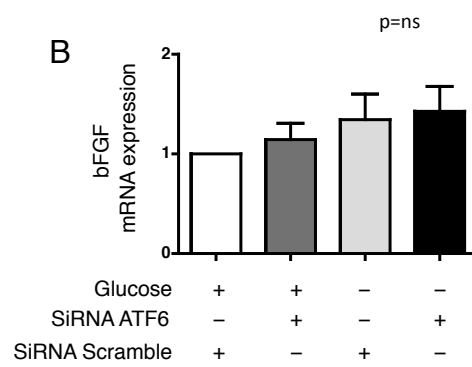
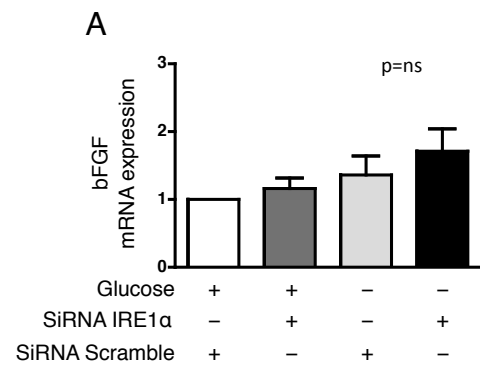
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Standard PDGF-BB concentration (pg/ml)	Corresponding optical density	Conditions (n=4)	Optical density (mean±se)	Corresponding concentration
0	0.04	Glucose (+) Oxygen (+)	0.03±0.004	<Min
31.2	0.07	Glucose (-) Oxygen (+)	0.03±0.001	<Min
62.5	0.11	Glucose (+) Oxygen (-)	0.03±0.001	<Min
125	0.19	Glucose (-) Oxygen (-)	0.03±0.006	<Min
250	0.34			
500	0.63			
1000	1.33			
2000	2.45			

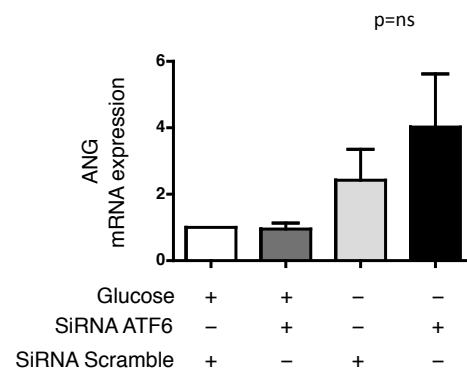
Supplemental Figure 2



Supplemental Figure 3



Supplemental Figure 4



SUPPLEMENTAL FIGURES LEGENDS

SUPPLEMENTAL FIGURE 1. A. HREC were cultured in glucose-deprived or standard medium with or without hypoxia for 24 hours. The level of cell death was evaluated by measuring the release of adenylate kinase with the ToxiLight[®] BioAssay Kit. Adenylate kinase concentrations were estimated by the luminescence of the medium and are presented as the mean \pm sem of three independent experiments. B. HREC were cultured in glucose-deprived medium or in standard medium with or without hypoxia for 24 hours. *PDGFB* transcript levels were measured by qRT-PCR and are presented as the mean \pm sem relative to levels after 24 hours of culture with standard conditions in four independent experiments. *, $p<0.05$. C. The secretion of PDGF-BB in the medium was quantified by ELISA. The concentration is presented as the mean \pm sem of four independent experiments. *, $p<0.05$.

SUPPLEMENTAL FIGURE 2. A. HREC were transfected with siRNAs targeting *IRE1 α* or control, non-targeted (scramble) siRNAs. A. *VEGFA* transcript levels were measured by qRT-PCR after the cells had incubated in glucose-free medium for 24 hours and compared to levels after 24 hours of culture with standard conditions (n=4). B. HREC were transfected with siRNAs targeting *ATF6* or control, non-targeted (scramble) siRNAs. *VEGFA* transcript levels were measured by qRT-PCR after the cells had incubated in glucose-free medium for 48 hours and compared to levels after 48 hours of culture with standard conditions (n=4).

SUPPLEMENTAL FIGURE 3. A. HREC were transfected with siRNAs targeting *IRE1 α* or control, non-targeted (scramble) siRNAs. *bFGF* transcript levels were measured by qRT-PCR after the cells had incubated in glucose-free medium for 24 hours and compared to levels after 24 hours of culture with standard conditions (n=4). B. HREC were transfected with siRNAs targeting *ATF6* or control, non-targeted (scramble) siRNAs. *bFGF* transcript levels were measured by qRT-PCR after the cells had incubated in glucose-free medium for 24 hours and compared to levels after 24 hours of culture with standard conditions (n=4).

SUPPLEMENTAL FIGURE 4. HREC were transfected with siRNAs targeting *ATF6* or with control, non-targeted (scramble) siRNAs. *ANG* transcript levels were measured by qRT-PCR after the cells had incubated in glucose-free medium for 24 hours and compared to levels after 24 hours of culture with standard conditions (n=4).