Fig .3A raw data

0 week-fasting blood glucose（mM）					1 week-fasting blood glucose（mM）			
	NG	DG	LF-DG	HF-DG		NG	DG	LF-DG	HF-DG
	3.5	21.4	21.6	21.3		4.3	28.5	19.4	18.5
	3.8	21.6	20.4	20.5		3.4	20.9	18.8	26.2
	3.6	18.2	19.3	18.2		4.7	23.9	16.3	21.6
	3.8	18.0	18.4	18.8		4.5	17.4	26.8	20.8
	3.9	18.1	18.1	18.9		4.0	17.5	22.2	21.8
	4.8	17.4	18.0	17.0		5.2	20.1	21.3	16.1
	4.5	17.8	17.6	17.8		4.4	23.3	21.4	24.2
	5.0	17.3	17.2	17.9		5.9	30.5	23.3	21.7
	5.1	23.9	23.1	23.9		4.2	19.0	20.2	21.8
	5.3	23.9	24.1	23.4		5.1	22.9	22.9	27.2
		16.8	16.7	16.9			22.6	21.1	18.7
		16.9	16.9	16.8			25.1	27.9	20.5
Mean	4.3	19.3	19.3	19.3	Mean	4.6	22.6	21.8	21.6

2 weeks-fasting blood glucose（mM）					3 weeks-fasting blood glucose（mM）			
	NG	DG	LF-DG	HF-DG		NG	DG	LF-DG	HF-DG
	3.4	20.5	19.1	17.9		5.3	21.3	20.5	18.1
	4.7	20.2	15.0	19.1		3.2	23.3	19.5	22.7
	2.8	26.6	19.7	19.0		4.8	25.2	21.8	17.6
	3.2	25.6	17.1	16.8		3.9	29.5	21.7	20.8
	4.0	20.8	17.8	20.7		4.2	21.7	20.0	19.1
	4.3	21.5	20.5	18.5		2.8	23.3	14.4	18.4
	4.2	16.9	21.8	19.7		3.1	19.3	13.3	19.8
	4.7	24.2	22.0	15.8		3.9	19.1	19.1	19.8
	3.2	18.2	21.3	19.4		3.3	17.5	18.3	14.9
	5.6	21.7	18.0	22.5		3.2	21.2	22.2	21.7
		24.2	19.2	18.8			27.1	17.1	18.9
		20.2	22.0	22.5			21.5	18.6	13.6
Mean	4.0	21.7	19.5	19.2	Mean	3.8	22.5	18.9	18.8

4 weeks-fasting blood glucose（mM）			
	NG	DG	LF-DG	HF-DG
	3.4	19.1	19.6	17.8
	5.7	20.1	18.9	21.2
	3.5	28.4	16.6	17.7
	3.7	28.1	19.9	16.3
	3.9	24.8	18.7	19.5
	2.9	26.0	20.7	21.9
	3.6	20.0	22.5	17.5
	4.5	21.1	18.3	18.8
	3.5	22.9		17.2
	3.9			
Mean	3.9	23.4	19.4	18.7

Fig .3B raw data

Glycosylated hemoglobin (ng/mL)			
NG	DG	LF-DG	HF-DG
115.8	322.3	187.9	180.8
221.0	236.7	237.9	200.6
192.7	332.0	312.5	176.5
192.5	257.2	174.1	163.5
194.4	317.6	239.8	243.2
119.4	236.4	207.5	229.1
115.0	335.0	288.5	187.0
142.4	337.4	299.5	164.4
186.2	359.3		228.8
133.6			
Mean 161.3	303.8	243.5	197.1

Fig .3C raw data

1 week-Average food intake of each mouse (g)

	NG	DG	LF-DG	HF-DG
First cage	24.7	41.8	40.8	43.2
	24.7	41.8	40.8	43.2
	24.7	41.8	40.8	43.2
	24.7	41.8	40.8	43.2
	24.7	41.8	40.8	43.2
		41.8	40.8	43.2
Second cage	23.7	43.1	42.9	40.4
	23.7	43.1	42.9	40.4
	23.7	43.1	42.9	40.4
	23.7	43.1	42.9	40.4
	23.7	43.1	42.9	40.4
		43.1	42.9	40.4
Mean	24.2	42.5	41.9	41.8

2 week-Average food intake of each mouse (g)

	NG	DG	LF-DG	HF-DG
First cage	25.1	51.8	48.3	52.1
	25.1	51.8	48.3	52.1
	25.1	51.8	48.3	52.1
	25.1	51.8	48.3	52.1
	25.1	51.8	48.3	52.1
		51.8	48.3	52.1
Second cage	24.3	50.9	51.0	48.2
	24.3	50.9	51.0	48.2
	24.3	50.9	51.0	48.2
	24.3	50.9	51.0	48.2
	24.3	50.9	51.0	48.2
		50.9	51.0	48.2
Mean	24.7	51.4	49.7	50.2

3 week-Average food intake of each mouse (g)

	NG	DG	LF-DG	HF-DG
First cage	23.9	47.6	46.9	49.6
	23.9	47.6	46.9	49.6
	23.9	47.6	46.9	49.6
	23.9	47.6	46.9	49.6
	23.9	47.6	46.9	49.6
		47.6	46.9	49.6
Second cage	25.2	49.4	47.8	46.8
	25.2	49.4	47.8	46.8
	25.2	49.4	47.8	46.8
	25.2	49.4	47.8	46.8
	25.2	49.4	47.8	46.8
		49.4	47.8	46.8
Mean	24.5	48.5	47.4	48.2

4 week-Average food intake of each mouse (g)

	NG	DG	LF-DG	HF-DG
First cage	24.7	50.3	45.7	48.3
	24.7	50.3	45.7	48.3
	24.7	50.3	45.7	48.3
	24.7	50.3	45.7	48.3
	24.7			48.3
Second cage	25.3	46.8	47.2	45.6
	25.3	46.8	47.2	45.6
	25.3	46.8	47.2	45.6
	25.3	46.8	47.2	45.6
	25.3	46.8		
Mean	25.0	48.4	46.5	47.1

Fig .3D raw data			
Serum insulin (mIU/L)			
NG	DG	LF-DG	HF-DG
27.6	20.0	22.9	31.6
39.6	17.8	20.8	26.8
31.1	14.3	27.1	20.2
38.8	14.6	19.7	26.2
36.1	15.1	27.8	27.4
29.2	13.0	20.9	34.0
39.4	13.7	26.7	35.4
37.1	22.9	23.2	20.3
29.9	19.3		30.4
34.2			
Mean	34.3	16.8	23.6	28.0

Fig .3E raw data				
Average food efficiency (%)				
	NG	DG	LF-DG	HF-DG
	4.1684	0.2219	-1.2429	0.1380
	4.1684	0.2219	-1.2429	0.1380
First cage	4.1684	0.2219	-1.2429	0.1380
	4.1684	0.2219	-1.2429	0.1380
	4.1684			0.1380
	2.5401	-0.2716	0.6838	-0.0230
	2.5401	-0.2716	0.6838	-0.0230
Second cage	2.5401	-0.2716	0.6838	-0.0230
	2.5401	-0.2716	0.6838	-0.0230
	2.5401	-0.2716		
Mean	3.3542	-0.0523	-0.2796	0.0665

Average food intake of total 4 weeks (g/mouse)				
	NG	DG	LF-DG	HF-DG
First cage	98.4	191.5	181.7	193.2
Second cage	98.4	190.2	188.9	181.0
Mean	98.4	190.9	185.3	187.1
STDEV	0.0424	0.9192	5.0912	8.6503

| Average weight gain of of total 4 weeks (g/mouse)				
	NG	DG	LF-DG	HF-DG
First cage	4.1	0.4	-2.3	0.3
Second cage	2.5	-0.5	1.3	0.0
Mean	3.3	0.0	-0.5	0.1
STDEV	1.1314	0.6659	2.5102	0.2180

Fig .3F raw data

0 week-Fasting body weight (g)

	NG	DG	LF-DG	HF-DG
	20.4	16.5	18.2	16.9
	22.8	15.7	18.0	17.2
	21.4	19.7	17.4	17.3
	22.8	16.3	17.2	17.6
	20.6	14.6	16.3	16.3
	21.2	18.6	16.6	15.7
	21.8	15.3	17.6	16.7
	22.3	15.5	14.8	16.9
	20.7	16.0	18.2	16.1
	20.7	19.5	16.7	19.7
		16.8	17.3	14.6
		17.8	15.2	15.7
Mean	21.5	16.9	17.0	16.7

1 week-Fasting body weight (g)

	NG	DG	LF-DG	HF-DG
	23.8	18.1	16.7	21.6
	25.6	19.7	16.4	17.8
	19.0	18.4	17.5	17.6
	22.3	17.8	17.4	15.7
	22.4	17.5	16.6	19.2
	24.1	18.3	17.7	18.0
	21.2	17.4	17.5	17.0
	21.2	17.5	18.3	17.5
	20.9	17.7	17.6	18.4
	21.4	17.9	17.4	15.8
		17.1	14.5	17.2
		17.2	17.4	16.3
Mean	22.2	17.9	17.1	17.7

2 weeks-Fasting body weight (g)

	NG	DG	LF-DG	HF-DG
	25.1	17.5	15.8	21.5
	26.9	19.1	15.5	17.6
	21.0	17.7	14.9	18.1
	23.2	17.5	16.6	15.3
	24.4	17.3	16.6	18.8
	24.7	17.6	18.2	17.7
	21.0	17.7	18.1	16.4
	21.6	16.8	18.5	16.2
	22.0	17.1	17.8	18.4
	21.7	18.1	18.0	16.5
		14.2	16.9	16.2
		16.4	15.2	15.5
Mean	23.2	17.3	16.8	17.4

3 weeks-Fasting body weight (g)

	NG	DG	LF-DG	HF-DG
	25.8	17.1	15.5	22.0
	27.0	19.1	15.1	17.1
	22.8	17.1	14.8	18.9
	24.0	17.2	16.2	16.5
	26.1	17.3	15.4	14.9
	27.2	17.1	17.5	15.9
	21.7	16.6	16.2	16.0
	22.2	16.7	17.6	15.8
	23.4	16.3	17.6	17.8
	22.5	18.0	17.3	16.0
		13.5	15.7	14.3
		16.3	16.5	14.4
Mean	24.3	16.9	16.3	16.6

4 weeks-Fasting body weight (g)

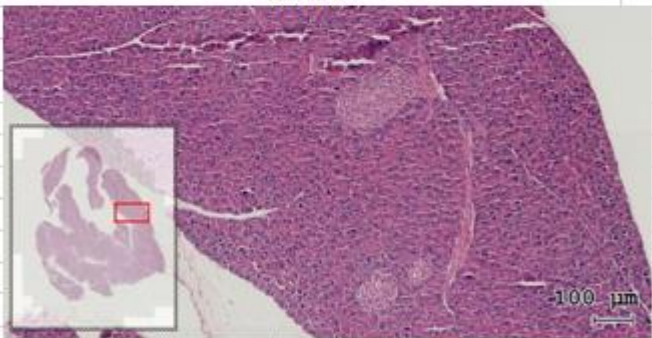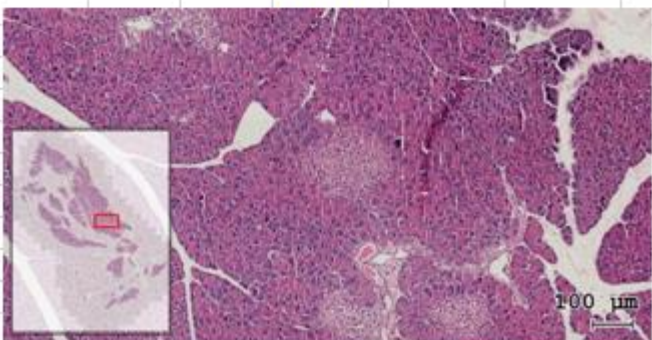|	NG	DG	LF-DG	HF-DG
	26.3	16.8	15.2	19.6
	27.1	18.7	14.7	16.3
	24.0	16.3	15.6	16.8
	24.4	17.5	14.6	15.0
	26.7	17.1	18.2	17.8
	27.1	16.9	17.7	16.5
	22.2	16.1	18.3	16.3
	22.8	15.8	17.5	15.8
	24.6	15.6		17.7
	22.5			
Mean	24.8	16.8	16.5	16.9

Fig .3G raw data

## NG
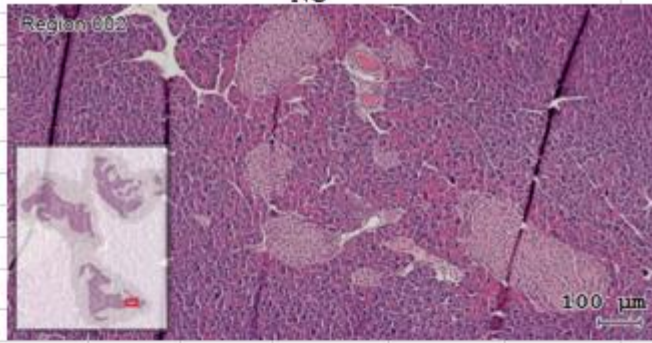
DG
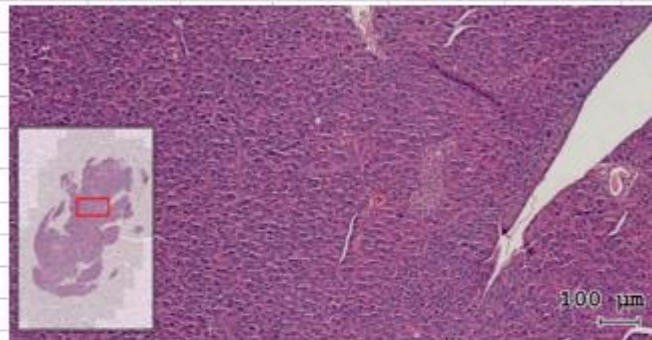
LF-DG

HF-DG

Fig .3H raw data

Islet area(μm^2)				
	NG	**DG**	**LF-DG**	**HF-DG**
	430996.77	115243.95	136424.32	165049.69
	178766.23	15427.59	121241.32	128010.26
	217394.77	66923.97	74097.59	482895.53
	237489.95	90181.32	62008.73	269734.24
	472506.88	71750.30	69996.89	169453.31

Pancreas area(μm^2)				
	NG	**DG**	**LF-DG**	**HF-DG**
	21457781.25	19963817.79	24190580.60	15835743.07
	21849969.00	9091135.46	19449271.64	21521841.79
	27310298.33	15509508.13	25114813.97	31802186.26
	21934843.75	29600169.48	16079588.41	22420587.14
	29191336.14	12142852.06	13489877.05	27098779.30

| Islet area/Pancreas area(%)				
	NG	**DG**	**LF-DG**	**HF-DG**
	2.01%	0.58%	0.56%	1.04%
	0.82%	0.17%	0.62%	0.59%
	0.80%	0.43%	0.30%	1.52%
	1.08%	0.30%	0.39%	1.20%
	1.62%	0.59%	0.52%	0.63%
Mean	1.26%	0.41%	0.48%	1.00%

Fig .4A raw data

Aorta contract value(mN)	NG-1	NG-2	NG-3	NG-4	NG-5	NG-6
ACh(0M)	9.758	7.886	11.352	6.153	6.665	8.789
ACh(1*10^{-9}M)	9.570	7.413	10.927	5.842	6.019	8.254
ACh(5*10^{-9}M)	9.375	7.138	10.022	5.309	5.816	8.002
ACh(1*10^{-8}M)	9.252	6.031	9.662	4.551	5.079	7.545
ACh(5*10^{-8}M)	7.626	5.501	9.109	4.018	4.225	7.079
ACh(1*10^{-7}M)	6.047	4.025	6.849	3.588	3.105	5.132
ACh(5*10^{-7}M)	3.262	3.175	4.613	2.788	2.205	2.239
ACh(1*10^{-6}M)	2.061	1.423	3.322	1.337	1.908	1.911
ACh(5*10^{-6}M)	1.125	1.003	3.047	0.917	1.638	1.722
ACh(1*10^{-5}M)	1.025	0.805	2.734	0.781	1.489	1.587

Relaxation(%NE)	NG-1	NG-2	NG-3	NG-4	NG-5	NG-6	Mean
ACh(1*10^{-9}M)	1.93%	6.00%	3.74%	5.05%	9.69%	6.09%	5.42%
ACh(5*10^{-9}M)	3.92%	9.49%	11.72%	13.72%	12.74%	8.95%	10.09%
ACh(1*10^{-8}M)	5.19%	23.52%	14.89%	26.04%	23.80%	14.15%	17.93%
ACh(5*10^{-8}M)	21.85%	30.24%	19.76%	34.70%	36.61%	19.46%	27.10%
ACh(1*10^{-7}M)	38.03%	48.96%	39.67%	41.69%	53.41%	41.61%	43.89%
ACh(5*10^{-7}M)	66.57%	59.74%	59.36%	54.69%	66.92%	74.52%	63.63%
ACh(1*10^{-6}M)	78.88%	81.96%	70.74%	78.27%	71.37%	78.26%	76.58%
ACh(5*10^{-6}M)	88.47%	87.28%	73.16%	85.10%	75.42%	80.41%	81.64%
ACh(1*10^{-5}M)	89.50%	89.79%	75.92%	87.31%	77.66%	81.94%	83.69%

Aorta contract value(mN)	DG-1	DG-2	DG-3	DG-4	DG-5	DG-6
ACh(0M)	8.398	6.391	5.908	9.131	4.126	7.642
ACh(1*10^{-9}M)	8.154	6.187	5.807	9.007	4.082	7.500
ACh(5*10^{-9}M)	7.937	6.032	5.724	8.986	3.842	7.491
ACh(1*10^{-8}M)	7.005	5.769	5.657	8.331	3.293	7.192
ACh(5*10^{-8}M)	6.214	4.527	4.292	7.332	2.700	6.351
ACh(1*10^{-7}M)	5.101	3.296	3.663	5.101	2.332	5.661
ACh(5*10^{-7}M)	4.322	2.716	3.102	4.235	2.002	5.117
ACh(1*10^{-6}M)	3.253	2.473	2.917	4.019	1.653	4.003
ACh(5*10^{-6}M)	2.944	2.526	2.400	3.885	1.323	3.601
ACh(1*10^{-5}M)	2.807	2.479	2.271	3.711	1.270	3.564

Relaxation(%NE)	DG-1	DG-2	DG-3	DG-4	DG-5	DG-6	Mean
ACh(1*10^{-9}M)	2.91%	3.19%	1.71%	1.36%	1.07%	1.86%	2.01%
ACh(5*10^{-9}M)	5.49%	5.62%	3.11%	1.59%	6.88%	1.98%	4.11%
ACh(1*10^{-8}M)	16.59%	9.73%	4.25%	8.76%	20.19%	5.89%	10.90%
ACh(5*10^{-8}M)	26.01%	29.17%	27.35%	19.70%	34.56%	16.89%	25.61%
ACh(1*10^{-7}M)	39.26%	48.43%	38.00%	44.14%	43.48%	25.92%	39.87%
ACh(5*10^{-7}M)	48.54%	57.50%	47.49%	53.62%	51.48%	33.04%	48.61%
ACh(1*10^{-6}M)	61.26%	61.30%	50.63%	55.99%	59.94%	47.62%	56.12%
ACh(5*10^{-6}M)	64.94%	60.48%	59.38%	57.45%	67.94%	52.88%	60.51%
ACh(1*10^{-5}M)	66.58%	61.21%	61.56%	59.36%	69.22%	53.36%	61.88%
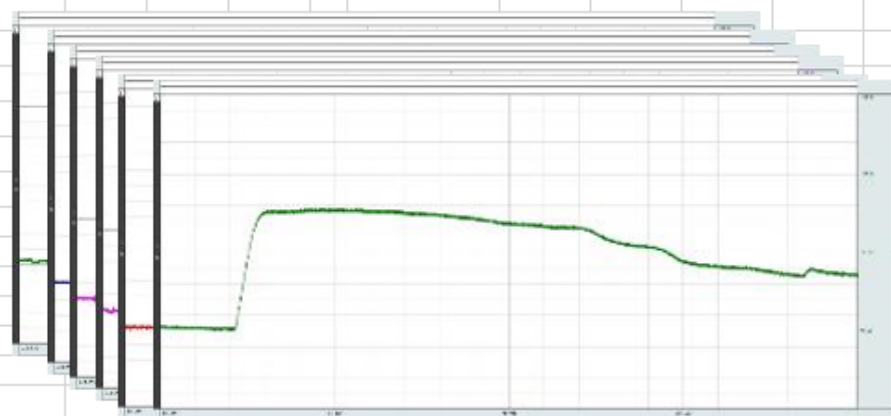
Aorta contract value(mN)							Relaxation(%NE)							
	LF-DG-1	LF-DG-2	LF-DG-3	LF-DG-4	LF-DG-5	LF-DG-6		LF-DG-1	LF-DG-2	LF-DG-3	LF-DG-4	LF-DG-5	LF-DG-6	Mean
ACh(0M)	6.382	10.327	8.747	9.792	8.689	6.152								
ACh($1*10^{-9}$M)	6.322	9.539	8.461	9.260	8.382	6.008	ACh($1*10^{-9}$M)	0.94%	7.63%	3.27%	5.43%	3.53%	2.34%	3.86%
ACh($5*10^{-9}$M)	6.011	9.171	8.066	8.158	7.749	5.611	ACh($5*10^{-9}$M)	5.81%	11.19%	7.79%	16.69%	10.82%	8.79%	10.18%
ACh($1*10^{-8}$M)	5.929	8.896	7.206	7.918	7.322	5.075	ACh($1*10^{-8}$M)	7.10%	13.86%	17.62%	19.14%	15.73%	17.51%	15.16%
ACh($5*10^{-8}$M)	5.688	7.482	7.085	6.383	5.834	4.551	ACh($5*10^{-8}$M)	10.87%	27.55%	19.00%	34.81%	32.86%	26.02%	25.19%
ACh($1*10^{-7}$M)	4.389	5.838	4.828	5.723	4.526	4.102	ACh($1*10^{-7}$M)	31.23%	43.47%	44.80%	41.55%	47.91%	33.32%	40.38%
ACh($5*10^{-7}$M)	3.191	3.069	2.514	4.374	3.434	3.114	ACh($5*10^{-7}$M)	50.00%	70.28%	71.26%	55.33%	60.48%	49.38%	59.46%
ACh($1*10^{-6}$M)	1.546	2.723	2.121	3.668	2.478	2.905	ACh($1*10^{-6}$M)	75.78%	73.63%	75.75%	62.54%	71.48%	52.78%	68.66%
ACh($5*10^{-6}$M)	1.099	2.156	1.834	3.335	2.119	2.603	ACh($5*10^{-6}$M)	82.79%	79.12%	79.03%	65.94%	75.61%	57.69%	73.36%
ACh($1*10^{-5}$M)	1.050	2.094	1.809	3.373	2.090	2.607	ACh($1*10^{-5}$M)	83.55%	79.72%	79.32%	65.55%	75.95%	57.62%	73.62%
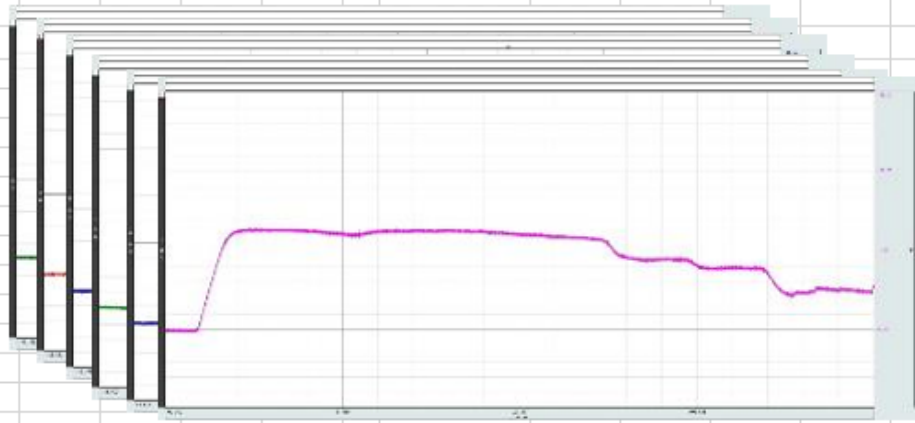
| Aorta contract value(mN)							Relaxation(%NE)							
	HF-DG-1	HF-DG-2	HF-DG-3	HF-DG-4	HF-DG-5	HF-DG-6		HF-DG-1	HF-DG-2	HF-DG-3	HF-DG-4	HF-DG-5	HF-DG-6	Mean
ACh(0M)	10.158	8.007	12.925	9.546	11.383	10.671								
ACh($1*10^{-9}$M)	9.135	7.142	12.319	9.305	10.992	10.138	ACh($1*10^{-9}$M)	10.07%	10.80%	4.69%	2.52%	3.43%	4.99%	6.09%
ACh($5*10^{-9}$M)	8.812	6.907	12.225	9.031	10.415	9.605	ACh($5*10^{-9}$M)	13.25%	13.74%	5.42%	5.39%	8.50%	9.99%	9.38%
ACh($1*10^{-8}$M)	7.795	6.937	11.935	8.917	9.585	9.037	ACh($1*10^{-8}$M)	23.26%	13.36%	7.66%	6.59%	15.80%	15.31%	13.66%
ACh($5*10^{-8}$M)	6.303	6.393	10.915	7.332	9.147	8.787	ACh($5*10^{-8}$M)	37.95%	20.16%	15.55%	23.19%	19.64%	17.66%	22.36%
ACh($1*10^{-7}$M)	4.036	4.001	8.003	5.371	5.839	5.771	ACh($1*10^{-7}$M)	60.27%	50.03%	38.08%	43.74%	48.70%	45.92%	47.79%
ACh($5*10^{-7}$M)	2.707	3.025	6.401	2.916	3.837	3.991	ACh($5*10^{-7}$M)	73.35%	62.22%	50.48%	69.45%	66.29%	62.60%	64.07%
ACh($1*10^{-6}$M)	2.428	2.347	5.015	2.409	3.013	3.137	ACh($1*10^{-6}$M)	76.10%	70.69%	61.20%	74.76%	73.53%	70.60%	71.15%
ACh($5*10^{-6}$M)	2.031	1.728	4.458	1.933	2.731	2.806	ACh($5*10^{-6}$M)	80.01%	78.42%	65.51%	79.75%	76.01%	73.70%	75.57%
ACh($1*10^{-5}$M)	1.952	1.714	4.126	1.636	2.441	2.295	ACh($1*10^{-5}$M)	80.78%	78.59%	68.08%	82.86%	78.56%	78.49%	77.89%

Fig .4B raw data

|	Arg1/β-Actin value					Normalized to NG			
	NG	DG	LF-DG	HF-DG		NG	DG	LF-DG	HF-DG
	0.50	0.72	0.39	0.53		172.94%	246.86%	135.45%	182.07%
	0.20	0.47	0.19	0.24		69.46%	160.52%	64.75%	82.46%
	0.14	0.68	0.29	0.51		49.51%	233.05%	100.60%	176.73%
	0.29	1.09	0.55	0.31		99.53%	375.60%	191.03%	107.50%
	0.04	0.54	0.44	0.30		12.11%	185.69%	153.09%	102.55%
	0.21	0.46	0.51	0.29		71.43%	158.97%	174.71%	101.45%
	0.16	0.31	0.13	0.07		56.55%	107.02%	45.47%	24.61%
	0.34	0.62	0.54	0.23		115.73%	213.94%	186.61%	78.85%
	0.29	0.57		0.67		101.22%	196.06%		229.40%
	0.73					251.52%			
Mean	0.29	0.60	0.38	0.35	Mean	100.00%	208.63%	131.46%	120.62%

Grayscale value (1~3)			
	NG-1	DG-1	LF-DG-1	HF-DG-1
Arg1	94731.00	130249.00	58089.00	70641.00
β-Actin	188924.00	181974.00	147914.00	133816.00
Arg1/β-Actin	0.50	0.72	0.39	0.53
	NG-2	DG-2	LF-DG-2	HF-DG-3
Arg1	40057.00	87992.00	34650.00	41028.00
β-Actin	198904.00	189060.00	184564.00	171606.00
Arg1/β-Actin	0.20	0.47	0.19	0.24
	NG-3	DG-3	LF-DG-3	HF-DG-3
Arg1	25956.00	112256.00	51399.00	96591.00
β-Actin	180802.00	166132.00	176216.00	188504.00
Arg1/β-Actin	0.14	0.68	0.29	0.51

Arg1-western blot data (1~3)
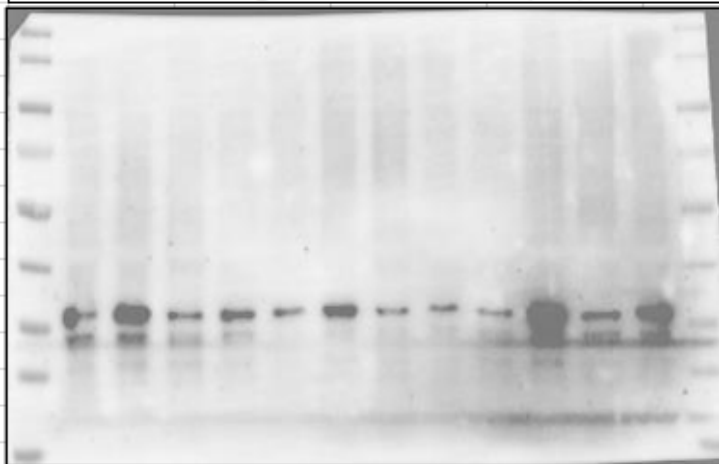
NG DG LF HF NG DG LF HF NG DG LF HF
1 1 1 1 2 2 2 2 3 3 3 3

β-Actin-western blot data (1~3)
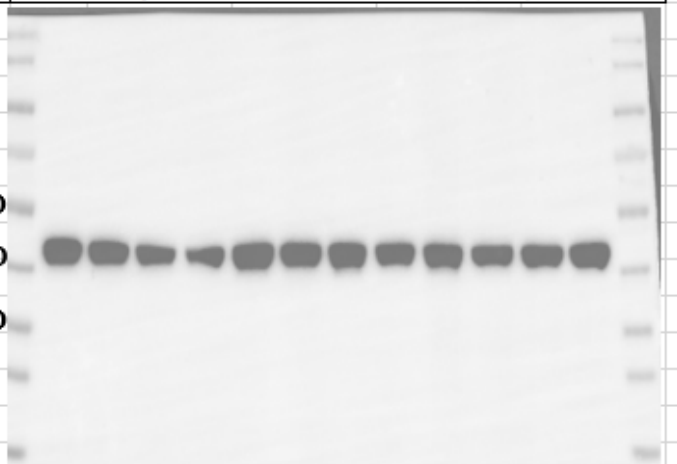
NG DG LF HF NG DG LF HF NG DG LF HF
1 1 1 1 2 2 2 2 3 3 3 3

Grayscale value (4~6)			
	NG-4	DG-4	LF-DG-4	HF-DG-4
Arg1	39826.00	140971.00	101719.00	57536.00
β-Actin	138004.00	129448.00	183652.00	184598.00
Arg1/β-Actin	0.29	1.09	0.55	0.31
	NG-5	DG-5	LF-DG-5	HF-DG-5
Arg1	5765.00	74928.00	61803.00	50628.00
β-Actin	164225.00	139173.00	139232.00	170280.00
Arg1/β-Actin	0.04	0.54	0.44	0.30
	NG-6	DG-6	LF-DG-6	HF-DG-6
Arg1	36597.00	82494.00	91159.00	65779.00
β-Actin	176708.00	178975.00	179959.00	223630.00
Arg1/β-Actin	0.21	0.46	0.51	0.29

Arg1-western blot data (4~6)
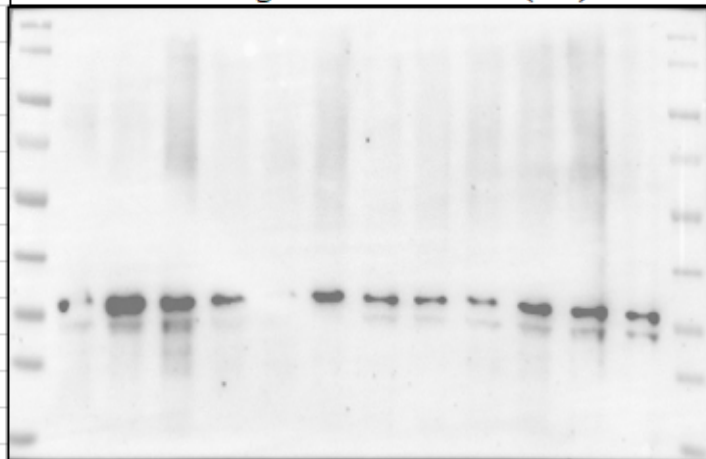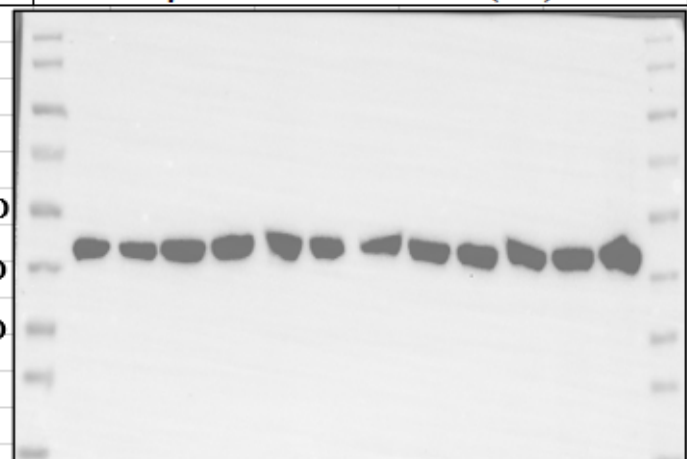
β-Actin-western blot data(4~6)

Grayscale value (7~10)

	NG-7	DG-7	LF-DG-7	HF-DG-7
Arg1	32351.00	67403.00	29713.00	14572.00
β-Actin	197306.00	217223.00	225396.00	204193.00
Arg1/β-Actin	0.16	0.31	0.13	0.07
	NG-8	DG-8	LF-DG-8	HF-DG-8
Arg1	67238.00	98743.00	98058.00	48338.00
β-Actin	200389.00	159189.00	181234.00	211431.00
Arg1/β-Actin	0.34	0.62	0.54	0.23
	NG-9	DG-9		HF-DG-9
Arg1	52626.00	120336.00		128970.00
β-Actin	179316.00	211683.00		193906.00
Arg1/β-Actin	0.29	0.57		0.67
	NG-10			
Arg1	114674.00			
β-Actin	157245.00			
Arg1/β-Actin	0.73			
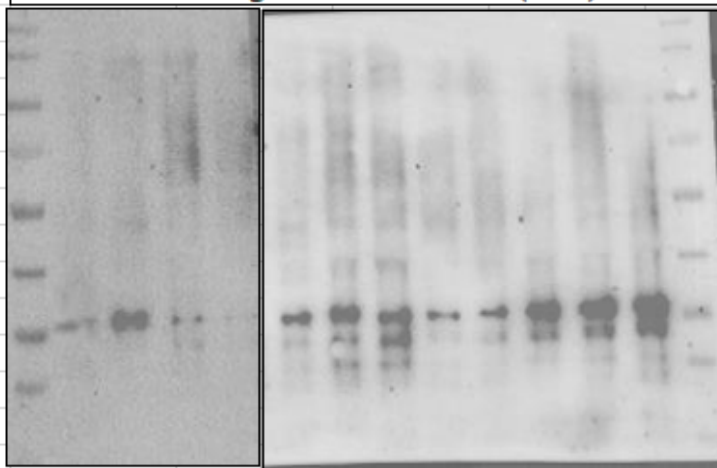
Arg1-western blot data (7~10)

NG	DG	LF	HF	NG	DG	LF	HF	NG	NG	DF	HF
7	7	7	7	8	8	8	8	9	10	9	9

β-Actin-western blot data (7~10)

50kD
40kD
30kD
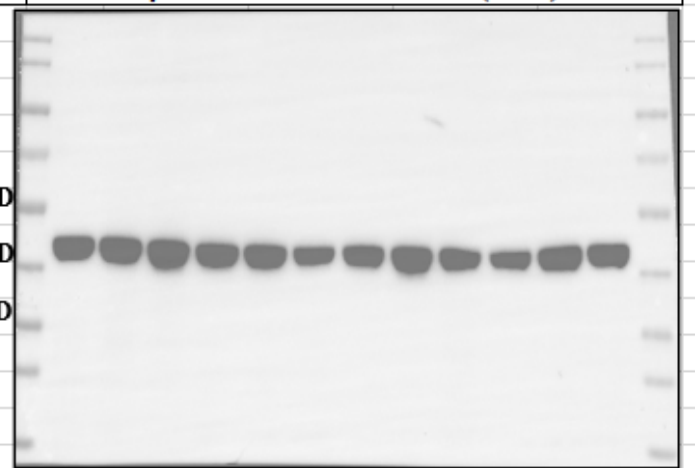
NG	DG	LF	HF	NG	DG	LF	HF	NG	NG	DF	HF
7	7	7	7	8	8	8	8	9	10	9	9

Fig .4C raw data

NO level(μmol/g protein)			
NG	**DG**	**LF-DG**	**HF-DG**
23.429	15.911	13.642	16.044
24.263	12.215	14.671	20.302
18.652	12.596	20.855	17.824
20.302	15.664	12.600	16.128
18.515	11.206	16.423	18.754
23.349	9.956	16.367	16.279
19.688	13.419	13.087	17.059
16.863	11.660	19.274	14.614
17.398	11.444		15.668
20.624			
Mean 20.31	12.67	15.87	16.96

Protein concentration determination

Protein concentration OD value— Sample diluted by 12.5 times (1)			
NG	DG	LF-DG	HF-DG
0.244	0.258	0.264	0.280
0.271	0.257	0.284	0.229
0.255	0.266	0.267	0.274
0.229	0.265	0.263	0.263
0.249	0.288		0.282

OD	Standard concentration (μg/mL)
0.107	0
0.114	5
0.186	25
0.194	50
0.322	125
0.531	250

$y = 597.51x - 68.964$
$R^2 = 0.9921$

Protein concentration(g/L)			
NG	DG	LF-DG	HF-DG
0.960	1.065	1.110	1.229
1.162	1.057	1.259	0.848
1.043	1.125	1.132	1.184
0.848	1.117	1.102	1.102
0.998	1.289		1.244

Protein concentration OD value— Sample diluted by 12.5 times (2)			
NG	DG	LF-DG	HF-DG
0.238	0.247	0.270	0.195
0.183	0.237	0.213	0.210
0.218	0.219	0.226	0.211
0.261	0.213	0.238	0.251
0.244			

OD	Standard concentration (μg/mL)
0.093	0
0.096	5
0.132	25
0.167	50
0.282	125
0.460	250

$y = 676.49x - 62.848$
$R^2 = 0.9995$

Protein concentration(g/L)			
NG	DG	LF-DG	HF-DG
1.227	1.303	1.498	0.863
0.762	1.219	1.016	0.990
1.058	1.066	1.125	0.999
1.421	1.016	1.227	1.337
1.278			

NO level determination

NO level-OD value				OD value			NO level(μM/g prot)			
NG	DG	LF-DG	HF-DG	Standard (20μM)	Blank		NG	DG	LF-DG	HF-DG
0.221	0.181	0.168	0.201	0.203	0.059		23.429	15.911	13.642	16.044
0.262	0.152	0.192	0.183				24.263	12.215	14.671	20.302
0.199	0.161	0.229	0.211				18.652	12.596	20.855	17.824
0.183	0.185	0.159	0.187				20.302	15.664	12.600	16.128
0.192	0.163		0.227				18.515	11.206		18.754

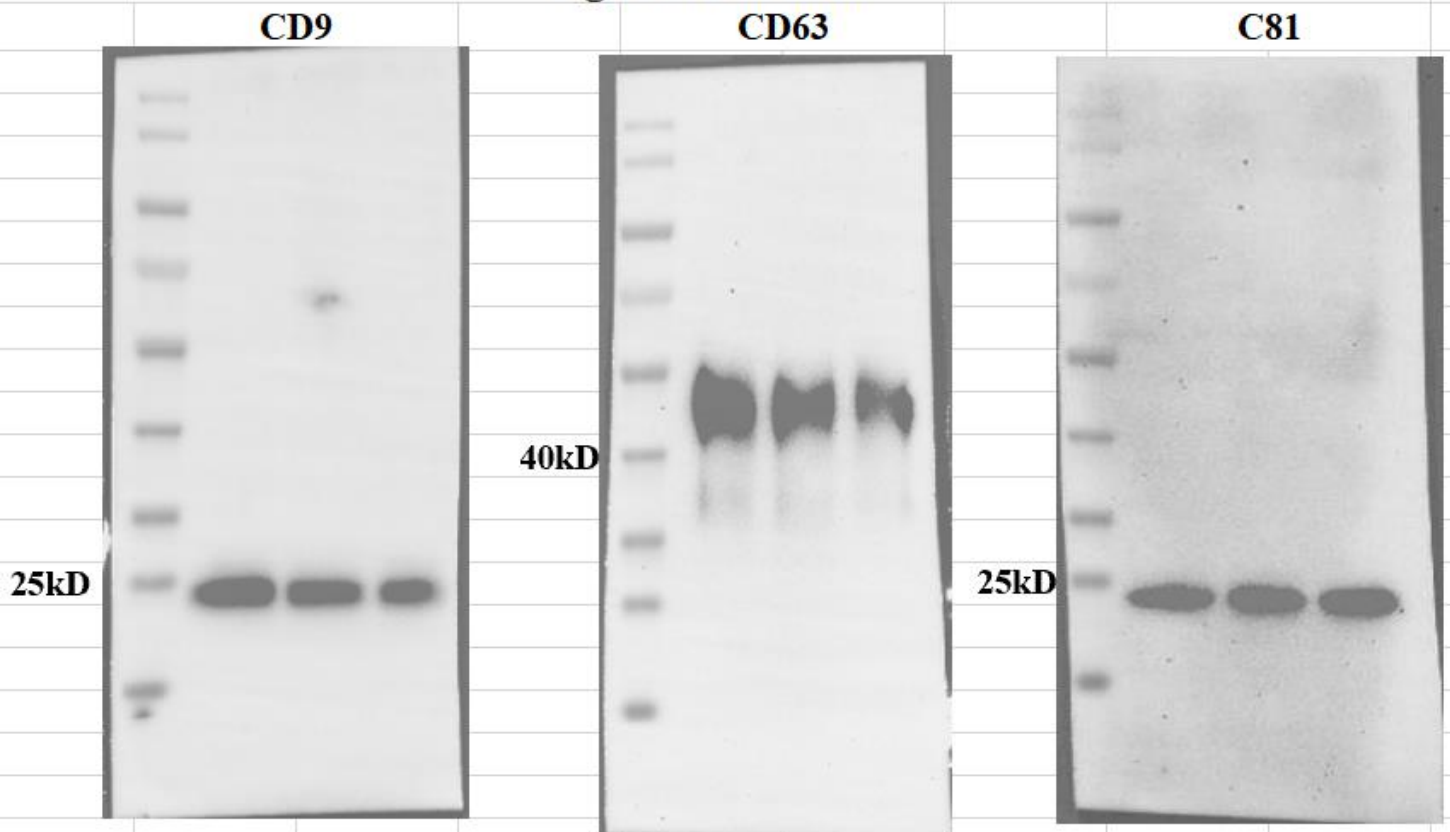| NO level-OD value				OD value			NO level(μM/g prot)			
NG	DG	LF-DG	HF-DG	Standard (20μM)	Blank		NG	DG	LF-DG	HF-DG
0.275	0.159	0.245	0.167	0.211	0.063		23.349	9.956	16.423	16.279
0.174	0.184	0.186	0.188				19.688	13.419	16.367	17.059
0.195	0.155	0.172	0.171				16.863	11.660	13.087	14.614
0.246	0.149	0.238	0.218				17.398	11.444	19.274	15.668
0.258							20.624			

Fig .5C raw data

CD9

**CD63**

C81

25kD

40kD

25kD

Fig .5D raw data

	Arg activity/protein					Normalized to NG			
	NG	DG	LF-DG	HF-DG		NG	DG	LF-DG	HF-DG
	0.047	0.082	0.071	0.080		78.42%	135.22%	116.48%	132.25%
	0.051	0.093	0.091	0.067		84.84%	152.94%	150.44%	111.33%
	0.058	0.089	0.077	0.083		96.48%	147.32%	127.54%	136.51%
	0.071	0.087	0.063	0.068		117.24%	143.63%	104.17%	111.73%
	0.048	0.081	0.069	0.062		79.51%	133.23%	114.24%	103.16%
	0.079	0.101	0.102	0.076		130.50%	167.23%	167.96%	124.87%
	0.065	0.105	0.070	0.068		107.35%	173.77%	115.17%	112.34%
	0.060	0.107	0.079	0.063		99.34%	176.80%	130.05%	103.22%
	0.058	0.087		0.077		96.37%	143.16%		126.45%
	0.067					109.96%			
Mean	0.06	0.09	0.08	0.07	Mean	100.00%	152.59%	128.26%	117.98%

Protein concentration determination

Protein concentration OD value—Sample diluted by 12.5 times (1)

NG	DG	LF-DG	HF-DG
0.360	0.318	0.287	0.329
0.310	0.344	0.311	0.340
0.330	0.292	0.338	0.349
0.289	0.360	0.276	0.303
0.319	0.320		0.290

| OD	Standard concentration (µg/mL)
0.097	0
0.112	5
0.124	25
0.171	50
0.268	125
0.403	250

y = 811.27x - 83.04
R² = 0.9949
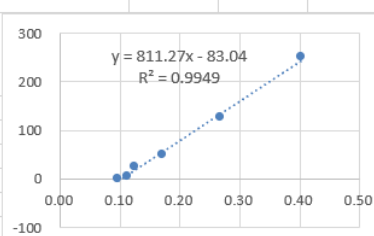
Protein concentration(g/L)

NG	DG	LF-DG	HF-DG
2.613	2.187	1.872	2.298
2.106	2.450	2.116	2.410
2.308	1.923	2.390	2.501
1.893	2.613	1.761	2.035
2.197	2.207		1.903

Protein concentration OD value—Sample diluted by 12.5 times (2)

NG	DG	LF-DG	HF-DG
0.350	0.359	0.379	0.312
0.302	0.328	0.328	0.336
0.333	0.355	0.235	0.317
0.371	0.297	0.361	0.362
0.314			

OD	Standard concentration (µg/mL)
0.108	0
0.116	5
0.150	25
0.196	50
0.290	125
0.436	250

y = 760.93x - 88.529
R² = 0.9941
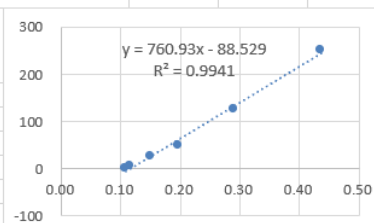
Protein concentration(g/L)

NG	DG	LF-DG	HF-DG
2.225	2.306	2.500	1.863
1.764	2.016	2.015	2.091
2.061	2.273	1.127	1.907
2.424	1.718	2.331	2.338
1.883			

Arg activity determination

Arg activity-OD value

NG	DG	LF-DG	HF-DG
0.124	0.179	0.132	0.184
0.108	0.227	0.193	0.163
0.135	0.172	0.185	0.207
0.134	0.227	0.111	0.138
0.106	0.178		0.119

Arg activity/protein

NG	DG	LF-DG	HF-DG
0.047	0.082	0.071	0.080
0.051	0.093	0.091	0.067
0.058	0.089	0.077	0.083
0.071	0.087	0.063	0.068
0.048	0.081		0.062

Arg activity-OD value

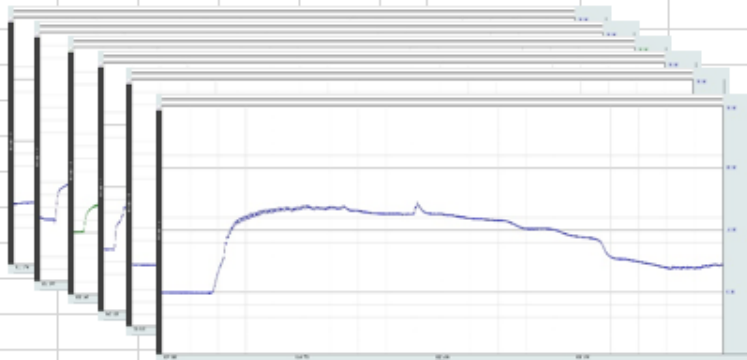| NG	DG	LF-DG	HF-DG
0.176	0.234	0.173	0.141
0.115	0.212	0.205	0.142
0.124	0.243	0.079	0.119
0.142	0.149	0.184	0.179
0.125			

Arg activity/protein

NG	DG	LF-DG	HF-DG
0.079	0.101	0.069	0.076
0.065	0.105	0.102	0.068
0.060	0.107	0.070	0.063
0.058	0.087	0.079	0.077
0.067			

Fig .6A raw data

Aorta contract value(mN)

	NG-1	NG-2	NG-3	NG-4	NG-5	NG-6
ACh(0M)	13.010	16.064	16.259	13.085	12.725	16.157
ACh($1*10^{-9}$M)	11.824	15.271	14.613	12.231	11.261	15.951
ACh($5*10^{-9}$M)	11.523	14.913	14.421	12.016	11.318	15.403
ACh($1*10^{-8}$M)	10.938	14.304	15.111	11.921	10.512	15.004
ACh($5*10^{-8}$M)	8.889	12.852	13.775	10.513	10.201	13.113
ACh($1*10^{-7}$M)	6.704	9.189	11.512	7.193	7.437	7.589
ACh($5*10^{-7}$M)	4.168	6.737	7.108	6.425	6.801	5.313
ACh($1*10^{-6}$M)	2.809	5.112	3.771	3.061	3.512	2.903
ACh($5*10^{-6}$M)	1.518	2.015	2.258	1.142	2.514	2.508
ACh($1*10^{-5}$M)	1.023	1.904	1.937	0.822	2.295	2.417

Relaxation(%NE)

	NG-1	NG-2	NG-3	NG-4	NG-5	NG-6	Mean
ACh($1*10^{-9}$M)	9.12%	4.94%	10.12%	6.53%	11.50%	1.27%	7.25%
ACh($5*10^{-9}$M)	11.43%	7.17%	11.30%	8.17%	11.06%	4.67%	8.97%
ACh($1*10^{-8}$M)	15.93%	10.96%	7.06%	8.90%	17.39%	7.14%	11.23%
ACh($5*10^{-8}$M)	31.68%	20.00%	15.28%	19.66%	19.83%	18.84%	20.88%
ACh($1*10^{-7}$M)	48.47%	42.80%	29.20%	45.03%	41.56%	53.03%	43.35%
ACh($5*10^{-7}$M)	67.96%	58.06%	56.28%	50.90%	46.55%	67.12%	57.81%
ACh($1*10^{-6}$M)	78.41%	68.18%	76.81%	76.61%	72.40%	82.03%	75.74%
ACh($5*10^{-6}$M)	88.33%	87.46%	86.11%	91.27%	80.24%	84.48%	86.32%
ACh($1*10^{-5}$M)	92.14%	88.15%	88.09%	93.72%	81.96%	85.04%	88.18%

Aorta contract value(mN)

	HG-1	HG-2	HG-3	HG-4	HG-5	HG-6
ACh(0M)	23.621	11.416	12.426	19.067	13.625	13.231
ACh($1*10^{-9}$M)	23.014	11.003	11.672	18.014	13.033	12.832
ACh($5*10^{-9}$M)	22.804	10.891	11.528	17.973	12.557	12.606
ACh($1*10^{-8}$M)	22.409	10.638	11.131	17.551	11.875	12.201
ACh($5*10^{-8}$M)	21.315	9.472	10.349	16.683	10.007	11.782
ACh($1*10^{-7}$M)	17.906	7.825	9.117	15.708	7.961	8.429
ACh($5*10^{-7}$M)	16.213	6.329	6.937	12.143	5.008	6.013
ACh($1*10^{-6}$M)	10.207	5.102	5.892	9.902	1.701	5.314
ACh($5*10^{-6}$M)	8.438	3.427	5.512	7.028	4.211	4.372
ACh($1*10^{-5}$M)	8.251	3.264	5.327	6.542	3.955	4.199

Relaxation(%NE)

	HG-1	HG-2	HG-3	HG-4	HG-5	HG-6	Mean
ACh($1*10^{-9}$M)	2.57%	3.62%	6.07%	5.52%	4.34%	3.02%	4.19%
ACh($5*10^{-9}$M)	3.46%	4.60%	7.23%	5.74%	7.84%	4.72%	5.60%
ACh($1*10^{-8}$M)	5.13%	6.81%	10.42%	7.95%	12.84%	7.78%	8.49%
ACh($5*10^{-8}$M)	9.76%	17.03%	16.71%	12.50%	26.55%	10.95%	15.59%
ACh($1*10^{-7}$M)	24.19%	31.46%	26.63%	17.62%	41.57%	36.29%	29.63%
ACh($5*10^{-7}$M)	31.36%	44.56%	44.17%	36.31%	63.24%	54.55%	45.70%
ACh($1*10^{-6}$M)	56.79%	55.31%	52.58%	48.07%	87.52%	59.84%	60.02%
ACh($5*10^{-6}$M)	64.28%	69.98%	55.64%	63.14%	69.09%	66.96%	64.85%
ACh($1*10^{-5}$M)	65.07%	71.41%	57.13%	65.69%	70.97%	68.26%	66.42%

Aorta contract value(mN)

	2FE+H G-1	2FE+H G-2	2FE+H G-3	2FE+H G-4	2FE+H G-5	2FE+H G-6
ACh(0M)	11.011	10.152	13.823	14.558	11.745	11.100
ACh(1*10⁻⁹M)	10.766	10.023	13.556	14.201	11.517	11.003
ACh(5*10⁻⁹M)	10.466	9.749	13.314	14.018	11.173	10.954
ACh(1*10⁻⁸M)	9.667	8.918	12.331	13.519	11.152	10.554
ACh(5*10⁻⁸M)	8.422	8.433	10.578	11.547	9.841	9.225
ACh(1*10⁻⁷M)	6.904	6.661	6.109	8.613	7.692	8.368
ACh(5*10⁻⁷M)	5.562	4.112	5.013	5.553	4.891	6.625
ACh(1*10⁻⁶M)	4.449	3.213	4.802	5.303	3.521	4.451
ACh(5*10⁻⁶M)	3.374	2.003	4.421	4.502	3.106	2.713
ACh(1*10⁻⁵M)	3.011	1.904	4.419	4.395	2.832	2.246

Relaxation(%NE)

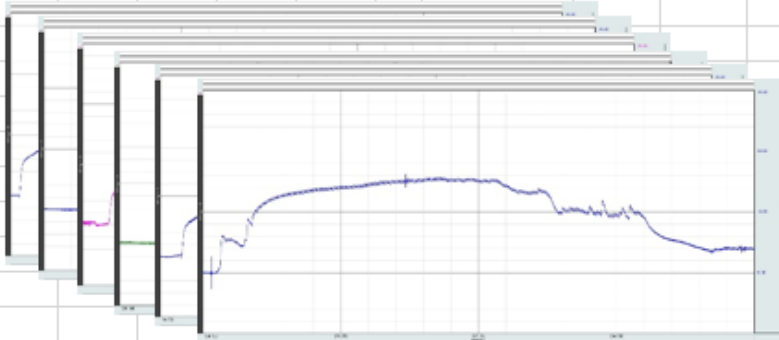|	2FE+H G-1	2FE+H G-2	2FE+H G-3	2FE+H G-4	2FE+H G-5	2FE+H G-6	Mean
ACh(1*10⁻⁹M)	2.23%	1.27%	1.93%	2.45%	1.94%	0.87%	1.78%
ACh(5*10⁻⁹M)	4.95%	3.97%	3.68%	3.71%	4.87%	1.32%	3.75%
ACh(1*10⁻⁸M)	12.21%	12.16%	10.79%	7.14%	5.05%	4.92%	8.71%
ACh(5*10⁻⁸M)	23.51%	16.93%	23.48%	20.68%	16.21%	16.89%	19.62%
ACh(1*10⁻⁷M)	37.30%	34.39%	55.81%	40.84%	34.51%	24.61%	37.91%
ACh(5*10⁻⁷M)	49.49%	59.50%	63.73%	61.86%	58.36%	40.32%	55.54%
ACh(1*10⁻⁶M)	59.59%	68.35%	65.26%	63.57%	70.02%	59.90%	64.45%
ACh(5*10⁻⁶M)	69.36%	80.27%	68.02%	69.08%	73.55%	75.56%	72.64%
ACh(1*10⁻⁵M)	72.65%	81.25%	68.03%	69.81%	75.89%	79.77%	74.57%

Aorta contract value(mN)

	10FE+HG-1	10FE+HG-2	10FE+HG-3	10FE+HG-4	10FE+HG-5	10FE+HG-6
ACh(0M)	12.434	13.471	14.086	12.207	18.682	15.041
ACh(1*10⁻⁹M)	11.816	12.664	13.028	10.982	18.212	14.607
ACh(5*10⁻⁹M)	11.782	12.572	12.557	10.793	17.933	14.451
ACh(1*10⁻⁸M)	10.437	12.036	11.891	8.754	16.812	14.113
ACh(5*10⁻⁸M)	9.515	10.937	9.823	6.524	14.324	12.337
ACh(1*10⁻⁷M)	7.833	6.931	7.504	6.102	10.102	7.008
ACh(5*10⁻⁷M)	6.342	4.095	5.516	4.322	7.912	5.893
ACh(1*10⁻⁶M)	5.219	3.355	3.311	3.209	4.001	4.323
ACh(5*10⁻⁶M)	2.822	2.771	2.835	2.945	3.513	3.705
ACh(1*10⁻⁵M)	2.504	2.731	2.801	2.876	3.442	3.882

Relaxation(%NE)

	10FE+HG-1	10FE+HG-2	10FE+HG-3	10FE+HG-4	10FE+HG-5	10FE+HG-6	Mean
ACh(1*10⁻⁹M)	4.97%	5.99%	7.51%	10.04%	2.52%	2.89%	5.65%
ACh(5*10⁻⁹M)	5.24%	6.67%	10.85%	11.58%	4.01%	3.92%	7.05%
ACh(1*10⁻⁸M)	16.06%	10.65%	15.58%	28.29%	10.01%	6.17%	14.46%
ACh(5*10⁻⁸M)	23.48%	18.81%	30.26%	46.56%	23.33%	17.98%	26.74%
ACh(1*10⁻⁷M)	37.00%	48.55%	46.73%	50.01%	45.93%	53.41%	46.94%
ACh(5*10⁻⁷M)	48.99%	69.60%	60.84%	64.59%	57.65%	60.82%	60.42%
ACh(1*10⁻⁶M)	58.03%	75.09%	76.49%	73.71%	78.58%	71.26%	72.19%
ACh(5*10⁻⁶M)	77.30%	79.43%	79.87%	75.87%	81.20%	75.37%	78.17%
ACh(1*10⁻⁵M)	79.86%	79.73%	80.12%	76.44%	81.58%	74.19%	78.65%

Aorta contract value(mN)						
	ABH+HG-1	ABH+HG-2	ABH+HG-3	ABH+HG-4	ABH+HG-5	ABH+HG-6
ACh(0M)	10.152	16.406	13.842	11.401	10.964	7.224
ACh($1*10^{-9}$M)	9.825	16.007	13.153	10.924	10.122	6.635
ACh($5*10^{-9}$M)	9.719	15.821	13.017	10.658	9.907	5.711
ACh($1*10^{-8}$M)	9.142	14.479	12.115	10.519	9.259	5.872
ACh($5*10^{-8}$M)	8.108	11.301	11.593	9.267	8.221	4.501
ACh($1*10^{-7}$M)	5.517	8.056	7.251	7.629	6.046	4.023
ACh($5*10^{-7}$M)	5.003	4.821	4.941	4.519	4.005	2.657
ACh($1*10^{-6}$M)	3.216	3.713	3.689	3.415	3.158	1.846
ACh($5*10^{-6}$M)	2.305	2.833	2.773	2.317	2.441	1.003
ACh($1*10^{-5}$M)	1.977	2.275	1.982	1.806	2.501	0.931

| Relaxation(%NE)							
	ABH+HG-1	ABH+HG-2	ABH+HG-3	ABH+HG-4	ABH+HG-5	ABH+HG-6	Mean
ACh($1*10^{-9}$M)	3.22%	2.43%	4.98%	4.18%	7.68%	8.15%	5.11%
ACh($5*10^{-9}$M)	4.27%	3.57%	5.96%	6.52%	9.64%	20.94%	8.48%
ACh($1*10^{-8}$M)	9.95%	11.75%	12.48%	7.74%	15.55%	18.72%	12.70%
ACh($5*10^{-8}$M)	20.13%	31.12%	16.25%	18.72%	25.02%	37.69%	24.82%
ACh($1*10^{-7}$M)	45.66%	50.90%	47.62%	33.08%	44.86%	44.31%	44.40%
ACh($5*10^{-7}$M)	50.72%	70.61%	64.30%	60.36%	63.47%	63.22%	62.12%
ACh($1*10^{-6}$M)	68.32%	77.37%	73.35%	70.05%	71.20%	74.45%	72.45%
ACh($5*10^{-6}$M)	77.30%	82.73%	79.97%	79.68%	77.74%	86.12%	80.59%
ACh($1*10^{-5}$M)	80.53%	86.13%	85.68%	84.16%	77.19%	87.11%	83.47%
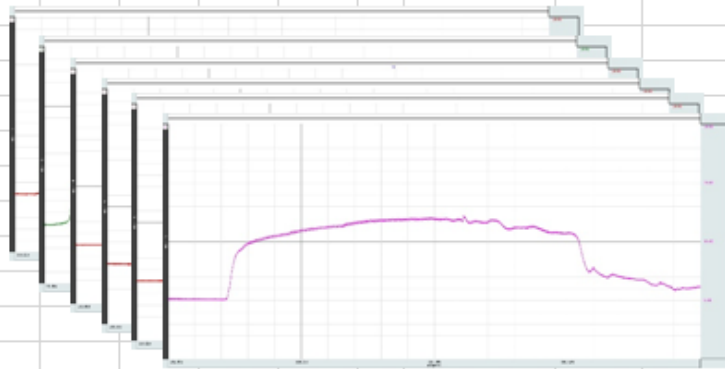
Fig .6B raw data

NO level (μmol/g prot)

	NG	HG	2FE+HG	10FE+HG	ABH+HG
	20.166	12.076	15.337	16.422	15.968
	18.019	9.949	13.604	14.928	16.670
	18.260	11.894	16.748	20.303	18.446
	22.368	11.624	15.208	13.578	19.326
	15.163	12.252	15.820	17.164	15.643
	19.623	11.511	14.878	15.899	16.776
Mean	18.93	11.55	15.27	16.38	17.14

Protein concentration determination

Protein concentration OD value— Sample diluted by 12.5 times (1)

NG	HG	2FE+HG	10FE+HG	ABH+HG
0.197	0.203	0.189	0.193	0.224
0.236	0.188	0.212	0.211	0.229
0.211	0.223	0.234	0.205	0.198

OD	Standard concentration (μg/mL)
0.099	0
0.111	5
0.137	25
0.168	50
0.265	125
0.439	250

$y = 744.24x - 75.371$
$R^2 = 0.9995$

Protein concentration(g/L)

NG	HG	2FE+HG	10FE+HG	ABH+HG
0.891	0.946	0.816	0.853	1.142
1.253	0.807	1.030	1.021	1.192
1.021	1.132	1.235	0.965	0.900

Protein concentration OD value— Sample diluted by 12.5 times (2)

NG	HG	2FE+HG	10FE+HG	ABH+HG
0.238	0.274	0.271	0.293	0.211
0.257	0.209	0.215	0.239	0.226
0.236	0.251	0.249	0.247	0.291

OD	Standard concentration (μg/mL)
0.116	0
0.136	5
0.166	25
0.209	50
0.314	125
0.500	250

$y = 664.63x - 83.788$
$R^2 = 0.9983$

Protein concentration(g/L)

NG	HG	2FE+HG	10FE+HG	ABH+HG
0.929	1.229	1.204	1.387	0.706
1.088	0.689	0.739	0.938	0.830
0.913	1.038	1.021	1.005	1.370

NO level determination

NO level-OD value

NG	HG	2FE+HG	10FE+HG	ABH+HG
0.191	0.143	0.151	0.162	0.193
0.225	0.118	0.162	0.171	0.205
0.196	0.158	0.211	0.203	0.181

OD value

Standard (20μM)	Blank
0.206	0.059

NO level(μM/g prot)

NG	HG	2FE+HG	10FE+HG	ABH+HG
20.166	12.076	15.337	16.422	15.968
18.019	9.949	13.604	14.928	16.670
18.260	11.894	16.748	20.303	18.446

NO level-OD value

NG	HG	2FE+HG	10FE+HG	ABH+HG
0.221	0.171	0.202	0.206	0.166
0.188	0.126	0.151	0.185	0.161
0.199	0.153	0.178	0.184	0.238

OD value

Standard (20μM)	Blank
0.215	0.061

NO level(μM/g prot)

NG	HG	2FE+HG	10FE+HG	ABH+HG
22.368	11.624	15.208	13.578	19.326
15.163	12.252	15.820	17.164	15.643
19.623	11.511	14.878	15.899	16.776

Fig .6C raw data

	Arg activity/protein						Normalized to NG				
	NG	**HG**	**2FE+HG**	**10FE+HG**	**ABH+HG**		**NG**	**HG**	**2FE+HG**	**10FE+HG**	**ABH+HG**
	0.081	0.165	0.119	0.109	0.084		93.86%	192.44%	138.79%	127.28%	97.68%
	0.083	0.148	0.110	0.106	0.094		96.81%	171.96%	127.56%	123.73%	109.01%
	0.090	0.187	0.094	0.114	0.087		104.63%	217.21%	109.08%	132.07%	101.17%
	0.088	0.177	0.096	0.094	0.109		102.79%	206.03%	111.86%	109.27%	127.23%
	0.079	0.176	0.106	0.097	0.080		92.24%	204.98%	123.01%	112.39%	92.74%
	0.094	0.157	0.112	0.110	0.102		109.66%	183.06%	130.54%	127.50%	118.30%
Mean	0.09	0.17	0.11	0.10	0.09	**Mean**	100.00%	195.95%	123.47%	122.04%	107.69%

Protein concentration determination

Protein concentration OD value— Sample diluted by 12.5 times (1)

NG	HG	2FE+HG	10FE+HG	ABH+HG
0.439	0.428	0.415	0.433	0.446
0.445	0.447	0.423	0.432	0.409
0.452	0.441	0.457	0.419	0.451

OD	Standard concentration (µg/mL)
0.100	0
0.114	5
0.129	25
0.179	50
0.275	125
0.455	250

$y = 708.3x - 71.965$
$R^2 = 0.9984$

Protein concentration(g/L)

NG	HG	2FE+HG	10FE+HG	ABH+HG
2.987	2.890	2.775	2.934	3.049
3.040	3.058	2.846	2.925	2.722
3.102	3.005	3.147	2.810	3.093

Protein concentration OD value— Sample diluted by 12.5 times (2)

NG	HG	2FE+HG	10FE+HG	ABH+HG
0.437	0.433	0.455	0.434	0.438
0.444	0.459	0.429	0.427	0.445
0.461	0.432	0.418	0.451	0.415

OD	Standard concentration (µg/mL)
0.090	0
0.106	5
0.130	25
0.174	50
0.275	125
0.456	250

$y = 692.26x - 66.195$
$R^2 = 0.9991$

Protein concentration(g/L)

NG	HG	2FE+HG	10FE+HG	ABH+HG
2.954	2.919	3.110	2.928	2.963
3.015	3.144	2.885	2.868	3.023
3.162	2.911	2.790	3.075	2.764

Arg activity determination

Arg activity-OD value

NG	HG	2FE+HG	10FE+HG	ABH+HG
0.241	0.478	0.331	0.321	0.256
0.253	0.452	0.312	0.311	0.255
0.279	0.561	0.295	0.319	0.269

Arg activity/protein

NG	HG	2FE+HG	10FE+HG	ABH+HG
0.081	0.165	0.119	0.109	0.084
0.083	0.148	0.110	0.106	0.094
0.090	0.187	0.094	0.114	0.087

Arg activity-OD value

NG	HG	2FE+HG	10FE+HG	ABH+HG
0.261	0.517	0.299	0.275	0.324
0.239	0.554	0.305	0.277	0.241
0.298	0.458	0.313	0.337	0.281

Arg activity/protein

NG	HG	2FE+HG	10FE+HG	ABH+HG
0.088	0.177	0.096	0.094	0.109
0.079	0.176	0.106	0.097	0.080
0.094	0.157	0.112	0.110	0.102

Fig .6D raw data

	Arg1/β–Actin value							Normalized to NG				
	NG	HG	2FE+HG	10FE+HG	ABH+HG			NG	HG	2FE+HG	10FE+HG	ABH+HG
	0.45	0.95	0.08	0.20	0.07			145.96%	309.96%	27.67%	63.95%	22.46%
	0.25	1.05	0.52	0.13	0.11			81.04%	342.11%	168.60%	43.60%	36.53%
	0.20	0.47	0.23	0.20	0.21			66.27%	152.88%	75.29%	65.92%	69.14%
	0.07	0.60	0.12	0.17	0.21			24.14%	196.76%	40.38%	54.32%	68.21%
	0.53	1.15	0.07	0.22	0.36			172.79%	373.49%	22.60%	71.68%	116.41%
	0.34	0.78	0.14	0.30	0.62			109.80%	255.42%	45.13%	99.03%	203.26%
Mean	0.31	0.83	0.19	0.20	0.26		Mean	100.00%	271.77%	63.28%	66.42%	86.00%

Grayscale value					
	NG	HG	2FE+HG	10FE+HG	ABH+HG
Arg1	59243.00	119805.00	12057.00	26482.00	9305.00
β–Actin	132352.00	126036.00	142076.00	135034.00	135067.00
Arg1/β–Actin	0.45	0.95	0.08	0.20	0.07

Grayscale value					
	NG	HG	2FE+HG	10FE+HG	ABH+HG
Arg1	32380.00	123043.00	65818.00	17142.00	14236.00
β–Actin	130292.00	117277.00	127299.00	128192.00	127079.00
Arg1/β–Actin	0.25	1.05	0.52	0.13	0.11

Grayscale value					
	NG	HG	2FE+HG	10FE+HG	ABH+HG
Arg1	30176.00	71510.00	39277.00	31743.00	34847.00
β–Actin	148476.00	152530.00	170102.00	157032.00	164358.00
Arg1/β–Actin	0.20	0.47	0.23	0.20	0.21

Grayscale value					
	NG	HG	2FE+HG	10FE+HG	ABH+HG
Arg1	9547.00	85108.00	17943.00	22688.00	27073.00
β–Actin	128967.00	141049.00	144892.00	136199.00	129417.00
Arg1/β–Actin	0.07	0.60	0.12	0.17	0.21

Grayscale value					
	NG	HG	2FE+HG	10FE+HG	ABH+HG
Arg1	67135.00	133305.00	8861.00	28876.00	48061.00
β–Actin	126697.00	116384.00	127875.00	131365.00	134624.00
Arg1/β–Actin	0.53	1.15	0.07	0.22	0.36

Grayscale value					
	NG	HG	2FE+HG	10FE+HG	ABH+HG
Arg1	46599.00	90187.00	14575.00	30710.00	81460.00
β–Actin	138384.00	115137.00	105309.00	101120.00	130684.00
Arg1/β–Actin	0.34	0.78	0.14	0.30	0.62

Fig .6E raw data

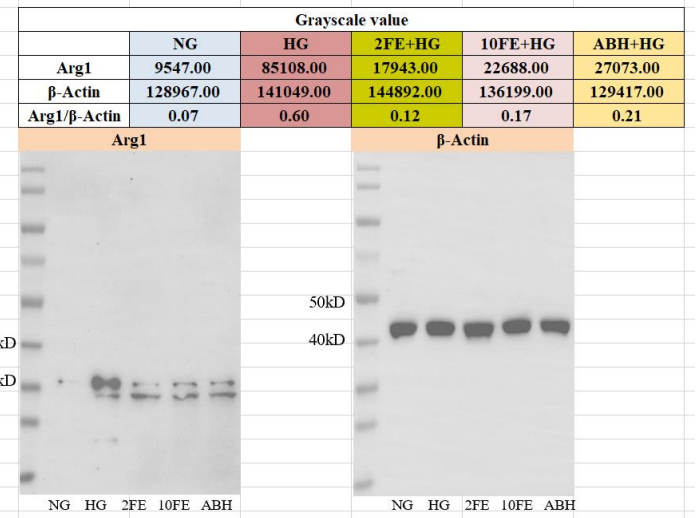|	p-p38/p38 value				
	NG	HG	2FE+HG	10FE+HG	ABH+HG
	0.97	1.12	0.73	0.85	0.76
	0.51	0.96	0.87	0.94	0.90
	1.01	1.57	1.32	1.52	0.83
	1.26	1.42	1.35	1.21	0.96
	0.80	1.55	1.35	1.29	1.42
	0.64	1.38	0.97	1.06	0.86
Mean	0.87	1.33	1.10	1.15	0.95

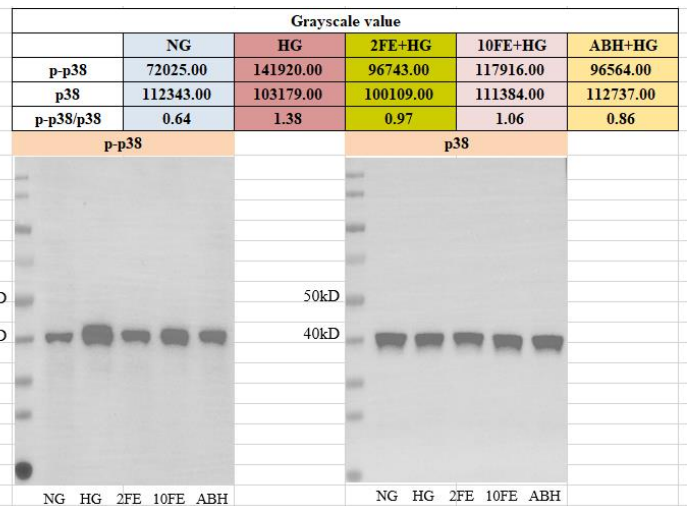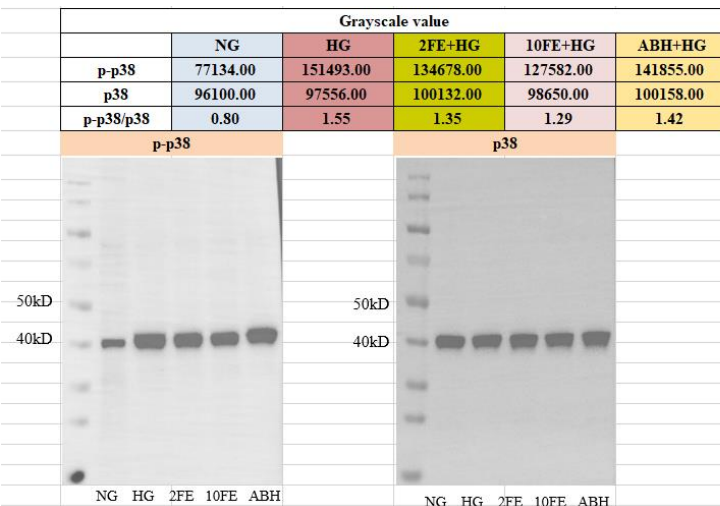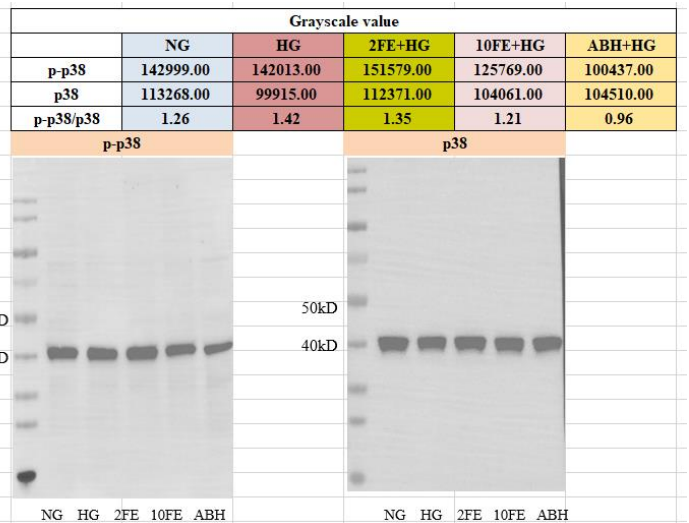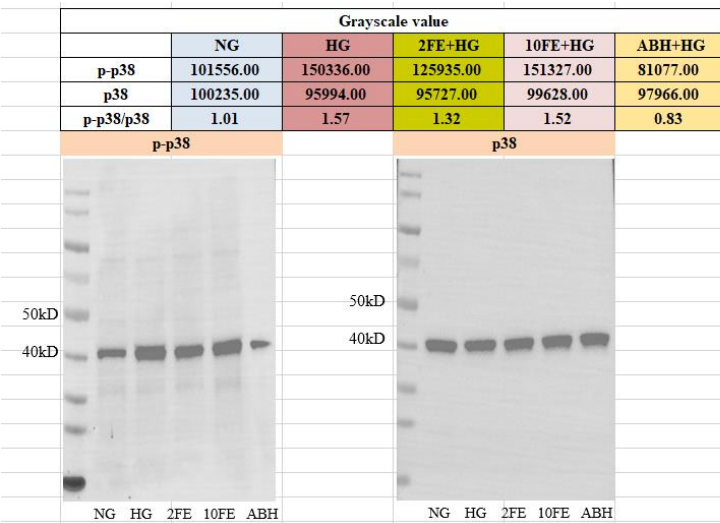|	Normalized to NG				
	NG	HG	2FE+HG	10FE+HG	ABH+HG
	111.81%	128.90%	84.28%	98.65%	87.85%
	58.98%	110.69%	100.66%	108.87%	103.68%
	116.92%	180.72%	151.81%	175.28%	95.50%
	145.69%	164.02%	155.66%	139.47%	110.90%
	92.62%	179.20%	155.21%	149.24%	163.44%
	73.98%	158.73%	111.52%	122.16%	98.84%
Mean	100.00%	153.71%	126.52%	132.28%	110.04%

Grayscale value					
	NG	HG	2FE+HG	10FE+HG	ABH+HG
p-p38	139906.00	169109.00	110770.00	131643.00	111349.00
p38	144396.00	151393.00	151673.00	153993.00	146261.00
p-p38/p38	0.97	1.12	0.73	0.85	0.76

Grayscale value					
	NG	HG	2FE+HG	10FE+HG	ABH+HG
p-p38	74635.00	135319.00	131179.00	131625.00	138042.00
p38	146030.00	141069.00	150383.00	139523.00	153648.00
p-p38/p38	0.51	0.96	0.87	0.94	0.90

Grayscale value					
	NG	HG	2FE+HG	10FE+HG	ABH+HG
p-p38	101556.00	150336.00	125935.00	151327.00	81077.00
p38	100235.00	95994.00	95727.00	99628.00	97966.00
p-p38/p38	1.01	1.57	1.32	1.52	0.83

Grayscale value					
	NG	HG	2FE+HG	10FE+HG	ABH+HG
p-p38	142999.00	142013.00	151579.00	125769.00	100437.00
p38	113268.00	99915.00	112371.00	104061.00	104510.00
p-p38/p38	1.26	1.42	1.35	1.21	0.96

Grayscale value					
	NG	HG	2FE+HG	10FE+HG	ABH+HG
p-p38	77134.00	151493.00	134678.00	127582.00	141855.00
p38	96100.00	97556.00	100132.00	98650.00	100158.00
p-p38/p38	0.80	1.55	1.35	1.29	1.42

Grayscale value					
	NG	HG	2FE+HG	10FE+HG	ABH+HG
p-p38	72025.00	141920.00	96743.00	117916.00	96564.00
p38	112343.00	103179.00	100109.00	111384.00	112737.00
p-p38/p38	0.64	1.38	0.97	1.06	0.86

Fig .6F raw data

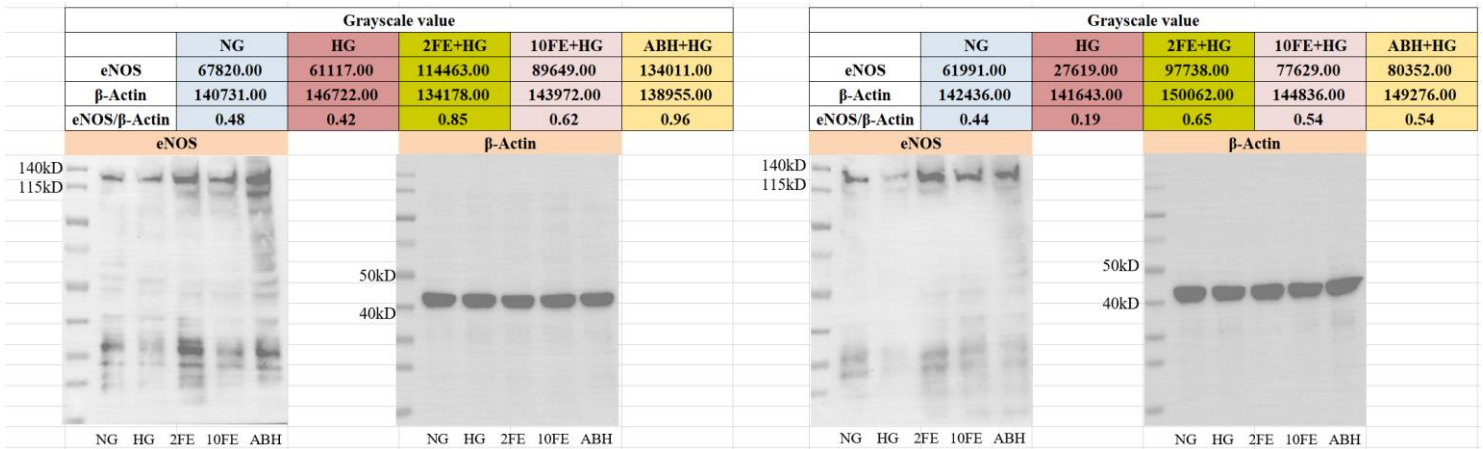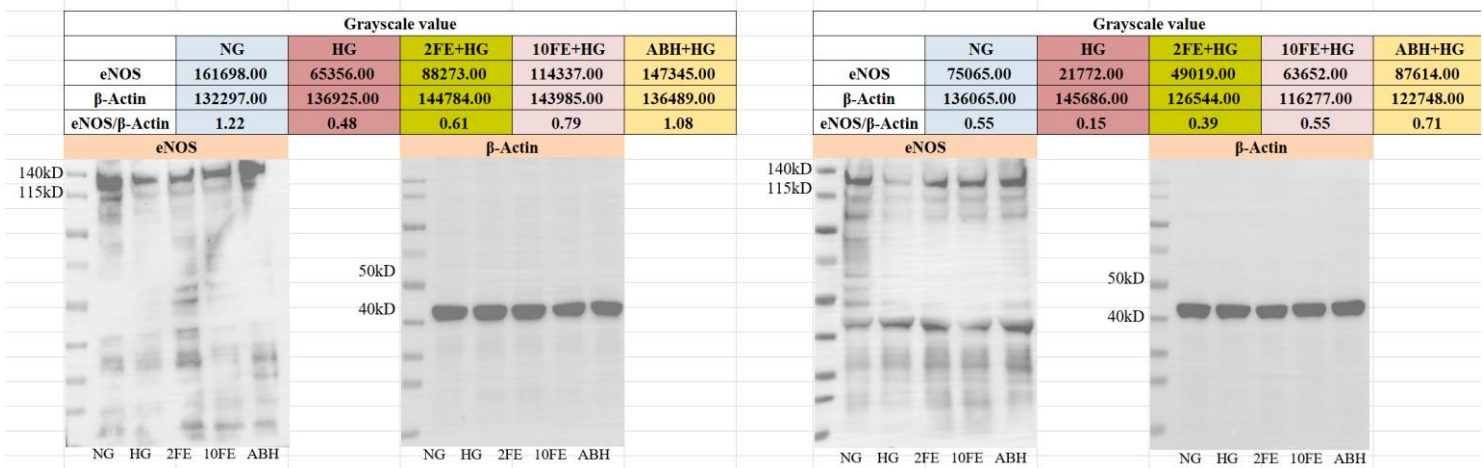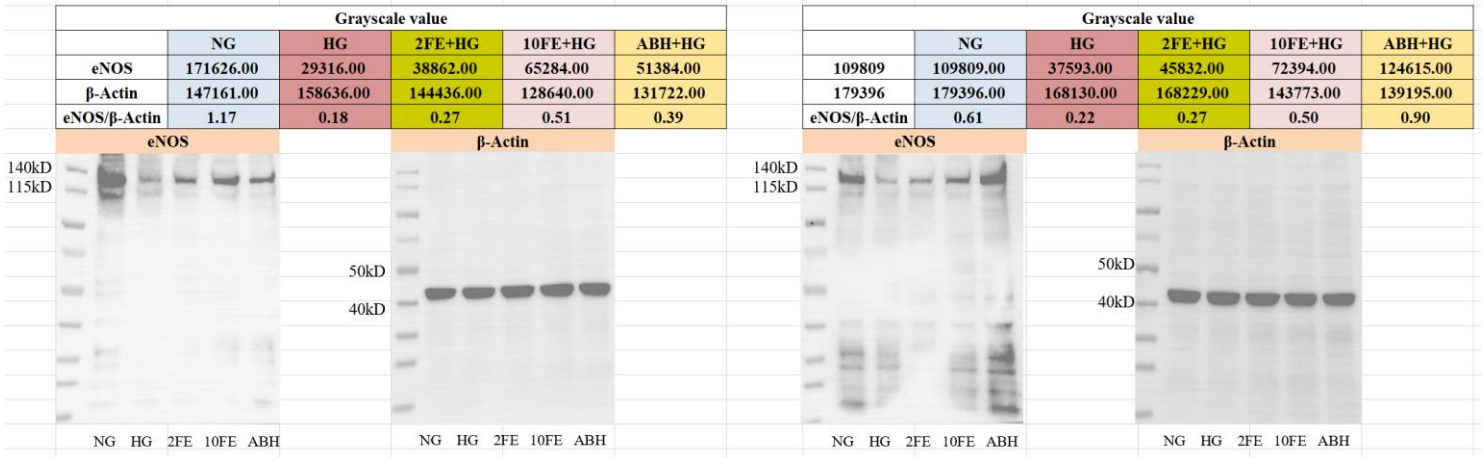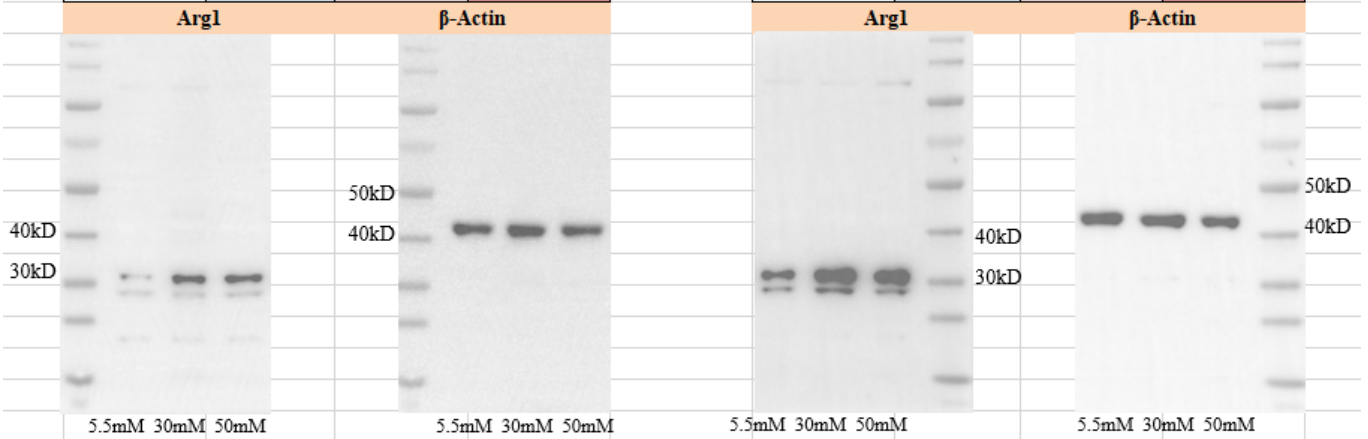|	eNOS/β-Actin						Normalized to NG				
	NG	HG	2FE+HG	10FE+HG	ABH+HG			NG	HG	2FE+HG	10FE+HG	ABH+HG
	1.17	0.18	0.27	0.51	0.39			156.56%	24.81%	36.12%	68.13%	52.37%
	0.61	0.22	0.27	0.50	0.90			82.17%	30.02%	36.57%	67.60%	120.18%
	1.22	0.48	0.61	0.79	1.08			164.08%	64.08%	81.85%	106.60%	144.92%
	0.55	0.15	0.39	0.55	0.71			74.06%	20.06%	52.00%	73.49%	95.82%
	0.48	0.42	0.85	0.62	0.96			64.69%	55.92%	114.52%	83.59%	129.47%
	0.44	0.19	0.65	0.54	0.54			58.43%	26.18%	87.44%	71.95%	72.26%
Mean	0.74	0.27	0.51	0.59	0.76		Mean	100.00%	36.84%	68.08%	78.56%	102.50%

Grayscale value

	NG	HG	2FE+HG	10FE+HG	ABH+HG
eNOS	171626.00	29316.00	38862.00	65284.00	51384.00
β-Actin	147161.00	158636.00	144436.00	128640.00	131722.00
eNOS/β-Actin	1.17	0.18	0.27	0.51	0.39

Grayscale value

		NG	HG	2FE+HG	10FE+HG	ABH+HG
109809	eNOS	109809.00	37593.00	45832.00	72394.00	124615.00
179396	β-Actin	179396.00	168130.00	168229.00	143773.00	139195.00
	eNOS/β-Actin	0.61	0.22	0.27	0.50	0.90

Grayscale value

	NG	HG	2FE+HG	10FE+HG	ABH+HG
eNOS	161698.00	65356.00	88273.00	114337.00	147345.00
β-Actin	132297.00	136925.00	144784.00	143985.00	136489.00
eNOS/β-Actin	1.22	0.48	0.61	0.79	1.08

Grayscale value

	NG	HG	2FE+HG	10FE+HG	ABH+HG
eNOS	75065.00	21772.00	49019.00	63652.00	87614.00
β-Actin	136065.00	145686.00	126544.00	116277.00	122748.00
eNOS/β-Actin	0.55	0.15	0.39	0.55	0.71

Grayscale value

	NG	HG	2FE+HG	10FE+HG	ABH+HG
eNOS	67820.00	61117.00	114463.00	89649.00	134011.00
β-Actin	140731.00	146722.00	134178.00	143972.00	138955.00
eNOS/β-Actin	0.48	0.42	0.85	0.62	0.96

Grayscale value

	NG	HG	2FE+HG	10FE+HG	ABH+HG
eNOS	61991.00	27619.00	97738.00	77629.00	80352.00
β-Actin	142436.00	141643.00	150062.00	144836.00	149276.00
eNOS/β-Actin	0.44	0.19	0.65	0.54	0.54

Fig .S1A raw data

	Arg1/β-Actin value				Normalized to NG		
	5.5mM	30mM	50mM		5.5mM	30mM	50mM
	0.20	0.76	0.87		41.88%	159.16%	182.20%
	0.62	1.19	1.21		129.84%	249.21%	253.40%
	0.59	1.66	1.73		123.56%	347.64%	362.30%
	0.50	1.71	1.75		104.71%	358.12%	366.49%
Mean	0.48	1.33	1.39	Mean	100.00%	278.53%	291.10%

Grayscale value					Grayscale value			
	5.5mM	30mM	50mM			5.5mM	30mM	50mM
Arg1	35122.00	147008.00	151981.00		Arg1	135344.00	270073.00	225019.00
β-Actin	178944.00	192538.00	175606.00		β-Actin	218443.00	227084.00	185956.00
Arg1/β-Actin	0.20	0.76	0.87		Arg1/β-Actin	0.62	1.19	1.21

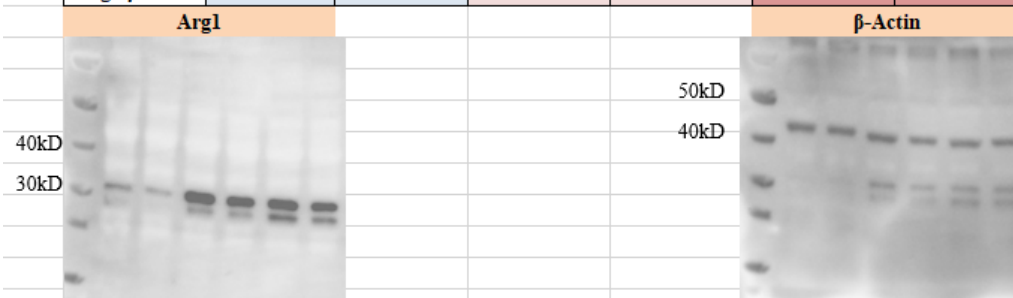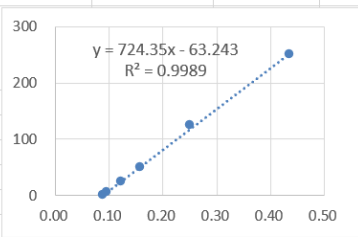| Grayscale value						
	5.5mM	5.5mM	30mM	30mM	50mM	50mM
Arg1	74806.00	50228.00	175540.00	152702.00	170391.00	141805.00
β-Actin	125924.00	100638.00	105889.00	89118.00	98666.00	80905.00
Arg1/β-Actin	0.59	0.50	1.66	1.71	1.73	1.75

Fig .S1B raw data

	Arg activity/protein					Normalized to NG		
	5.5mM	30mM	50mM			5.5mM	30mM	50mM
	0.082	0.175	0.171			96.17%	206.57%	201.34%
	0.093	0.140	0.197			109.56%	165.15%	231.51%
	0.088	0.225	0.194			103.14%	265.10%	228.05%
	0.085	0.126	0.178			100.16%	148.71%	209.56%
	0.08	0.17	0.182			90.96%	202.64%	214.54%
Mean	0.08	0.17	0.18		Mean	100.00%	197.63%	217.00%

Protein concentration determination

Protein concentration OD value— Sample diluted by 12.5 times				OD	Standard concentration (μg/mL)		Protein concentration(g/L)		
5.5mM	30mM	50mM		0.088	0		5.5mM	30mM	50mM
0.432	0.509	0.546		0.096	5		2.925	3.607	3.935
0.553	0.422	0.530		0.122	25		3.997	2.837	3.793
0.545	0.401	0.417		0.159	50		3.926	2.651	2.792
0.533	0.461	0.448		0.251	125		3.819	3.182	3.067
0.486	0.469	0.479		0.436	250		3.403	3.253	3.341

y = 724.35x - 63.243
R² = 0.9989

Arg activity determination

Arg activity-OD value				Arg activity/protein		
5.5mM	30mM	50mM		5.5mM	30mM	50mM
0.239	0.633	0.673		0.082	0.175	0.171
0.372	0.398	0.746		0.093	0.140	0.197
0.344	0.597	0.541		0.088	0.225	0.194
0.325	0.402	0.546		0.085	0.126	0.178
0.263	0.560	0.609		0.077	0.172	0.182