

Supplementary Table 3. Development study (study III): summary of the baseline characteristics of the population

	Linagliptin treated				P-value				
	NC (n=10)	CDHF (n=10)	Low serum IGFBP-1 (n=11)	High serum IGFBP-1 (n=9)	High serum IGFBP-3 (n=10)	Low serum IGFBP-3 (n=10)	NC vs. CDHF	CDHF vs. IGFBP- 1 low 1 high	CDHF vs. IGFBP- 3 low 3 high
Group characteristics by IGFBP-1 expression									
NAS score	0.00±0.00	8.00±0.00	7.73±0.47	7.33±0.88			<0.0001	0.5878	0.0173
Steatosis (%)	0.00±0.00	3.00±0.00	3.00±0.00	2.78±0.44			<0.0001	>0.9999	0.0990
Inflammation score	0.00±0.00	3.00±0.00	3.00±0.00	3.00±0.00			<0.0001	NA	NA
Hepatocyte ballooning (%)	0.00±0.00	2.00±0.00	1.73±0.47	1.56±0.53			<0.0001	0.2922	0.0352
Liver weight (g)	1.47±0.11	2.73±0.65	2.11±0.23	1.78±0.16			<0.0001	0.2742	0.0028
ALT (U/L)	23.71±3.62	300.01±116.00	281.30±55.65	207.40±74.61			<0.0001	0.9645	0.0387
AST (U/L)	37.99±4.94	277.75±66.33	335.10±49.33	302.20±70.98			<0.0001	0.0769	0.7985
TG (mg/dL)	84.84±16.61	61.08±12.00	53.41±10.20	58.63±7.159			0.0004	0.4874	0.9868
Serum IGF-I (pg/mL)	2,343.36±431.10	579.62±170.43	356.17±128.29	354.76±128.13			<0.0001	0.1484	0.1636
Serum IGFBP-1 (pg/mL)	301.72±129.27	1532.00±360.6	1,574.31±581.61	805.08±236.35			0.0002	0.9952	0.0095
Group characteristics by IGFBP-3 expression									
NAS score	0.00±0.00	8.00±0.00			7.60±0.71	7.50±0.71	<0.0001		0.1917
Steatosis (%)	0.00±0.00	3.00±0.00			2.90±0.32	2.90±0.32	<0.0001		0.6291
Inflammation score	0.00±0.00	3.00±0.00			3.00±0.00	3.00±0.00	<0.0001		NA
Hepatocyte ballooning (%)	0.00±0.00	2.00±0.00			1.70±0.48	1.60±0.52	<0.0001		0.1595
Liver weight (g)	1.47±0.11	2.73±0.65			1.89±0.19	2.03±0.31	<0.0001		<0.0001
ALT (U/L)	23.71±3.62	300.01±116.00			241.40±73.33	254.60±76.93	<0.0001		0.2821
AST (U/L)	37.99±4.94	277.75±66.33			327.30±56.32	313.40±67.07	<0.0001		0.1273
TG (mg/dL)	84.84±16.61	61.08±12.00			60.53±6.78	50.99±8.92	0.0002		0.9991
Serum IGF-I (pg/mL)	2,343.36±431.10	579.62±170.43			363.19±145.88	347.88±107.10	<0.0001		0.7150
Serum IGFBP-3 (pg/mL)	35.90±3.54	39.50±6.89			31.80±4.63	31.05±5.72	0.5791		0.0348

Values are presented as mean±standard deviation or number (%).

NC, normal chow; CDHF, choline-deficient high-fat; IGFBP, insulin-like growth factor-binding protein; NAS, non-alcoholic fatty liver disease activity score; NA, not available; ALT, alanine aminotransferase; AST, aspartate aminotransferase; TG, triglyceride; IGF, insulin-like growth factor.