

**Appendix Table 1.** Reliability of the muscle fiber typing and morphometry measurements

Fiber type	Mean±SD	ICC	SEM	%SEM
Type I CSA ( $\mu\text{m}^2$ )	6,080.83±1,586.72	0.983	206.88	3.40
Type IIa CSA ( $\mu\text{m}^2$ )	4,958.48±1,437.88	0.955	305.02	6.15
Type IIax CSA ( $\mu\text{m}^2$ )	4,192.45±1,813.80	0.894	590.53	14.09
Type IIx CSA ( $\mu\text{m}^2$ )	3,948.95±1,488.55	0.862	552.97	14.00*
Type I (%)	55.63±13.95	0.976	2.16	3.88
Type IIa (%)	20.79±7.88	0.961	1.56	7.50
Type IIax (%)	9.67±9.95	0.907	3.03	31.33
Type IIx (%)	13.89±11.03	0.919	3.08	22.17

ICC, intraclass correlation coefficient; SEM, standard error of measurement; CSA, cross-sectional area. ICC and SEM of muscle fiber CSA and percentage in the erector spinae of the first 10 included subjects.

**Appendix Table 2.** Reliability of the muscle fiber typing and morphometry measurements

Fiber type	Mean±SD	ICC	SEM	%SEM
Type I CSA ( $\mu\text{m}^2$ )	7,441.85±2,224.96	0.996	140.72	1.89
Type IIa CSA ( $\mu\text{m}^2$ )	5,127.48±1,853.11	0.988	203.00	3.96
Type IIax CSA ( $\mu\text{m}^2$ )	3,630.72±1,329.56	0.911	396.65	10.92
Type IIx CSA ( $\mu\text{m}^2$ )	3,535.81±1,327.68	0.975	209.92	5.94
Type I (%)	51.71±12.66	0.966	2.33	4.51
Type IIa (%)	20.13±7.73	0.849	3.00	14.90
Type IIax (%)	9.87±6.10	0.591	3.71	37.59
Type IIx (%)	18.28±12.69	0.959	2.36	12.91

ICC, intraclass correlation coefficient; SEM, standard error of measurement; CSA, cross-sectional area. ICC and SEM of muscle fiber CSA and percentage in the multifidus muscle of the first 10 included subjects.

**Appendix Table 3.** Fiber type CSA, percentage and RCSA of the right lumbar ES and lumbar MF

Fiber type	CSA ES	CSA MF	P-value
Type I (CSA) ( $\mu\text{m}^2$ )	6,279.48±340.66	7,439.31±444.59	0.0053
Type IIa (CSA) ( $\mu\text{m}^2$ )	5,288.13±327.69	5,475.71±509.30	0.6521
Type IIax (CSA) ( $\mu\text{m}^2$ )	4,715.31±433.28	4,054.29±362.62	0.2758
Type IIx (CSA) ( $\mu\text{m}^2$ )	4,065.81±392.76	3,818.05±266.45	0.6384
Type I (%)	57.74±3.76	59.07±3.63	0.3717
Type IIa (%)	23.32±2.12	22.45±1.95	0.8675
Type IIax (%)	8.65±2.19	9.21±1.76	0.7130
Type IIx (%)	15.43±2.49	13.89±2.97	0.3534
Type I (RCSA) (%)	63.54±3.07	68.8±2.82	0.3717
Type IIa (RCSA) (%)	21.60±1.99	19.17±1.82	0.4802
Type IIax (RCSA) (%)	7.23±1.99	5.93±1.14	0.7501
Type IIx (RCSA) (%)	11.8±2.20	9.14±2.24	0.2052

Values are presented as mean±SD. CSA, cross-sectional area; RCSA, relative cross-sectional area; ES, erector spinae; MF, multifidus.