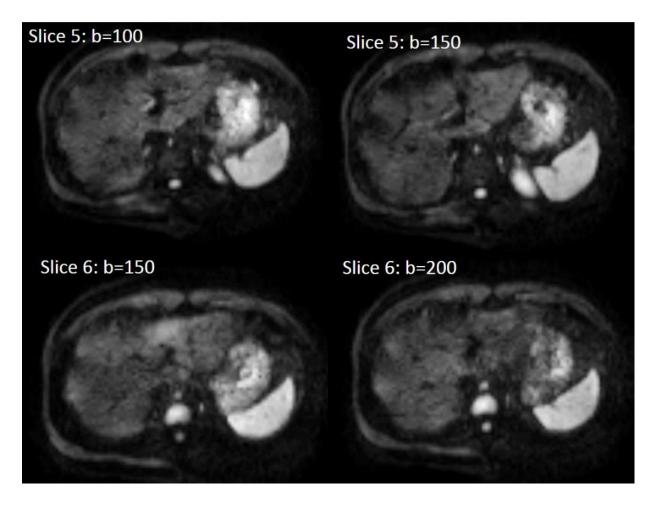
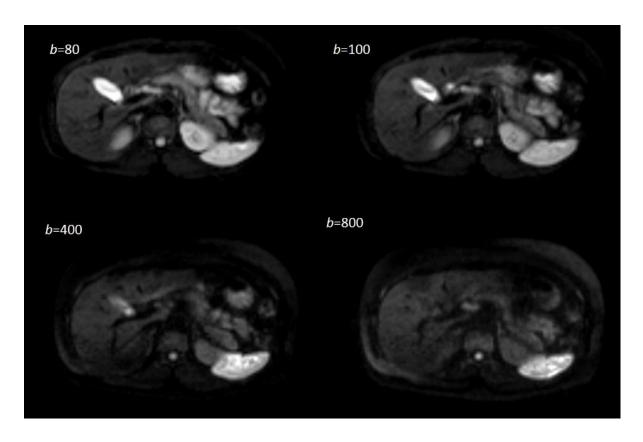
Supplementary documents

Examples of two scan subjected excluded from analysis in this study (Supplementary Fig 1, 2).



Supplementary Fig 1: Excluded Case 1. There is displacement of liver position among different *b*-values. In addition, signal distortion and inhomogeneity are noted.



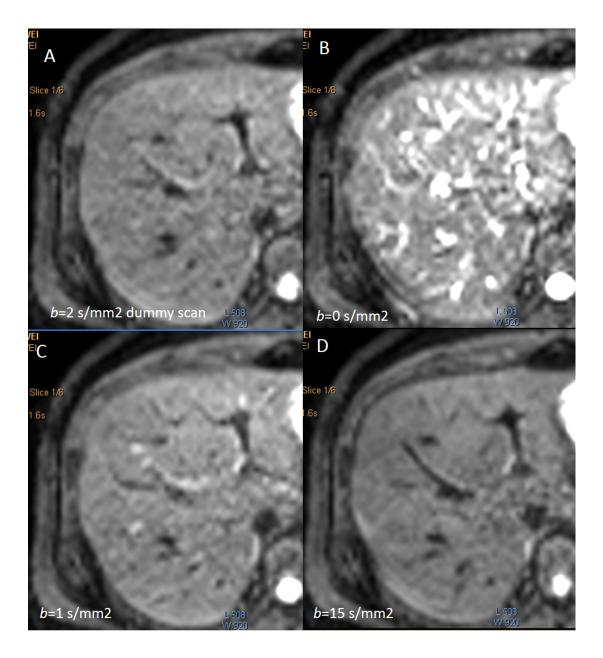
Supplementary Fig 2: Excluded Case 2. There is displacement of liver position among different *b*-values. Note the gallbladder shown at *b*-value=80 s/mm² is not visible at *b*-value=800 s/mm². In addition, signal inhomogeneity is noted.

Supplementary document 1:

PF mean 0.1 0.071 0.063 0.109 0.078 0.069 0.12 0.084 0.074 efference between F0 vs F1 0.016 0.014 0.012 0.017 0.015 0.013 0.018 0.017 0.014 difference between F0 vs F1 0.029 0.031 0.036 0.036 0.036 0.036 0.036 0.036 0.036 0.036 0.036 0.036 0.036 0.036 0.036 0.036 0.031 0.036 0.036 0.036 0.036 0.036 0.031 0.036 0.036 0.031 0.036 0.036 0.031 0.036 0.036 0.031 0.036 0.031 0.036 0.031 0.036 0.031 0.046 1.02 0.21 0.021 0.021 0.021 0.021 0.021 0.021 0.021 0.021 0.021 0.021 0.022 0.021 0.022 0.021 0.022 0.021 0.022 0.023 0.031 0.044 0.044 0.044 0.044											
PF mean			Threshold b_40			Threshold b_60			Threshold b_80		
PF SD			F0	F1	F2-4	FO	F1	F2-4	F0	F1	F2-4
Dslow mean Dslow mean Dslow mean Dslow mean Dslow SD		PF mean	0.1	0.071	0.063	0.109	0.078	0.069	0.12	0.084	0.074
Dslow mean 1.3 1.09 1.04 1.28 1.07 1.03 1.26 1.06 1.02		PF SD	0.016	0.014	0.012	0.017	0.015	0.013	0.018	0.017	0.014
Dslow SD 0.23 0.11 0.12 0.22 0.11 0.12 0.21 0.11 0.12	difference between F0 vs F1			0.029			0.031			0.036	
Digit mean 21.02 19.4 19.04 19.15 17.38 17.51 17.04 15.95 16.33		Dslow mean	1.3	1.09	1.04	1.28	1.07	1.03	1.26	1.06	1.02
Dfast mean 21.02 19.4 19.04 19.15 17.38 17.51 17.04 15.95 16.33		Dslow SD	0.23	0.11	0.12	0.22	0.11	0.12	0.21	0.11	0.12
Dfast SD 3.74 3.04 3.64 3.67 2.81 4.78 3.16 2.41 5.34	difference between F0 vs F1			0.21			0.21			0.2	
difference between F0 vs F1 1.62 1.77 1.09 Threshold b_100 Threshold b_150 Threshold b_200 Threshold b_100 Threshold b_150 Threshold b_200 F0 F1 F2-4 F0 F1 O.044 O.048 O.055 O.016 O.055 O.016 O.055 O.016 O.055 O.016 O.055 O.016 O.055 O.016 O.055 O.01 O.012 O.12 O.12 O.12		Dfast mean	21.02	19.4	19.04	19.15	17.38	17.51	17.04	15.95	16.31
Threshold b_100		Dfast SD	3.74	3.04	3.64	3.67	2.81	4.78	3.16	2.41	5.34
FO F1 F2-4 F0 F1 F2-4 F1	difference between F0 vs F1			1.62			1.77			1.09	
PF mean 0.133 0.089 0.08 0.148 0.1 0.088 0.181 0.11 0.100 PF SD 0.023 0.016 0.015 0.031 0.016 0.015 0.055 0.016 0.025 difference between F0 vs F1			Threshold b_100		Threshold b_150			Threshold b_200			
PF SD 0.023 0.016 0.015 0.031 0.016 0.015 0.055 0.016 0.023 difference between F0 vs F1 Dslow mean 1.24 1.05 1.01 1.21 1.03 0.99 1.14 1.02 0.97 Dslow SD 0.21 0.11 0.12 0.2 0.11 0.13 0.17 0.12 0.13 difference between F0 vs F1 Dfast mean 15.51 14.93 15.37 14.05 13.31 13.82 11.92 13.03 12.12 Dfast SD 3.14 2.26 5.38 2.93 2.08 5.06 3.04 3.32 3.53 difference between F0 vs F1 0.58 0.58 0.74 -1.11 -1.11 product of PF*Dslow*Dfast when b=40 0.00987 0.015 0.074 -1.11 product of PF*Dslow*Dfast when b=80 0.00785 0.00785 0.00485 0.00485			F0	F1	F2-4	F0	F1	F2-4	F0	F1	F2-4
difference between F0 vs F1 0.044 0.048 0.071 Dslow mean 1.24 1.05 1.01 1.21 1.03 0.99 1.14 1.02 0.97 Dslow SD 0.21 0.11 0.12 0.2 0.11 0.13 0.17 0.12 0.13 difference between F0 vs F1 0.19 0.18 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12		PF mean	0.133	0.089	0.08	0.148	0.1	0.088	0.181	0.11	0.101
Dslow mean 1.24 1.05 1.01 1.21 1.03 0.99 1.14 1.02 0.97 Dslow SD 0.21 0.11 0.12 0.2 0.11 0.13 0.17 0.12 0.13 difference between F0 vs F1 0.19 0.18 0.12 0.12 Dfast mean 15.51 14.93 15.37 14.05 13.31 13.82 11.92 13.03 12.12 Dfast SD 3.14 2.26 5.38 2.93 2.08 5.06 3.04 3.32 3.53 difference between F0 vs F1 0.58 0.74 -1.11 -1.11 product of PF*Dslow*Dfast when b=40 0.00987 0.015 0.0074 -1.11 product of PF*Dslow*Dfast when b=60 0.00785 0.00785 0.00485 0.00485 0.00485		PF SD	0.023	0.016	0.015	0.031	0.016	0.015	0.055	0.016	0.021
Dslow SD 0.21 0.11 0.12 0.2 0.11 0.13 0.17 0.12 0.13	difference between F0 vs F1			0.044			0.048			0.071	
difference between F0 vs F1 0.19 0.18 0.12 Dfast mean 15.51 14.93 15.37 14.05 13.31 13.82 11.92 13.03 12.12 Dfast SD 3.14 2.26 5.38 2.93 2.08 5.06 3.04 3.32 3.53 difference between F0 vs F1 0.58 0.74 -1.11 -1.11 product of PF*Dslow*Dfast when b=40 0.00987 0.00987 0.0015 0.0015 product of PF*Dslow*Dfast when b=80 0.00785 0.00485 0.00485 0.00485		Dslow mean	1.24	1.05	1.01	1.21	1.03	0.99	1.14	1.02	0.97
Dfast mean 15.51 14.93 15.37 14.05 13.31 13.82 11.92 13.03 12.12 Dfast SD 3.14 2.26 5.38 2.93 2.08 5.06 3.04 3.32 3.53 difference between F0 vs F1 0.58 0.74 -1.11 product of PF*Dslow*Dfast when b=40 0.00987 0.015 0.0015 product of PF*Dslow*Dfast when b=80 0.00785 0.00485 0.00485		Dslow SD	0.21	0.11	0.12	0.2	0.11	0.13	0.17	0.12	0.13
Dfast SD 3.14 2.26 5.38 2.93 2.08 5.06 3.04 3.32 3.53	difference between F0 vs F1			0.19			0.18			0.12	
difference between F0 vs F1 0.58 0.74 -1.11 product of PF*Dslow*Dfast when b=40 0.00987 0.00987 0.00987 product of PF*Dslow*Dfast when b=60 0.0115 0.00785 0.00785 product of PF*Dslow*Dfast when b=100 0.00485 0.00485 0.00485		Dfast mean	15.51	14.93	15.37	14.05	13.31	13.82	11.92	13.03	12.12
product of PF*Dslow*Dfast when b=40 0.00987 product of PF*Dslow*Dfast when b=60 0.0115 product of PF*Dslow*Dfast when b=80 0.00785 product of PF*Dslow*Dfast when b=100 0.00485		Dfast SD	3.14	2.26	5.38	2.93	2.08	5.06	3.04	3.32	3.53
product of PF*Dslow*Dfast when b=60 0.0115 product of PF*Dslow*Dfast when b=80 0.00785 product of PF*Dslow*Dfast when b=100 0.00485	difference between F0 vs F1			0.58			0.74			-1.11	
product of PF*Dslow*Dfast when b=60 0.0115 product of PF*Dslow*Dfast when b=80 0.00785 product of PF*Dslow*Dfast when b=100 0.00485											
product of PF*Dslow*Dfast											
product of PF*Dslow*Dfast when b=100 0.00485	•										
	•										
product of PF*DSIOW*DTast When b=150 U.UUb39	•										
	product of PF*DsIow*Dfast	wnen b=150		0.00639							

A validation analysis of the support vector machine (SVM) method used in this article. The mean differences between F0 measurement and F1 measurement was computed for PF, Dslow, Dfast, and for threshold b=40, 60, 80, 100, 150, 200 [s/mm²] respectively, and then the product of PF*Dslow*Dfast was computed for threshold b=40, 60, 80, 100, 150 [s/mm²] respectively. In agreement with the support vector machine (SVM) analysis result, threshold b=60 [s/mm²] offers the largest PF*Dslow*Dfast product.

The mean difference between F0 measurement and F1 measurement of Dfast for threshold b=200 [s/mm²] is negative, therefore PF*Dslow*Dfast product for threshold b=200 [s/mm²] is not calculated.



Supplementary Fig 3: Typical liver EPI (echo planar imaging) diffusion images of b-value of 2 (dummy scan), 0, 1, and 15 (s/mm², acquired with the same 1.5 Tesla scanner used for the study in this paper). b-value= 0 image (B) is associated with extensive bright blood signal.