

Table 1 - Scanning parameters for specimens used in this study.

Specimen	Scanning location	Scanning solution	Spatial resolution	Field of view (FOV)	Matrix size in pixel	Echo time (T_E)	Repetition time (T_R)	Average number	Scanning time	Figure in this study
<i>Eucidaris metularia</i> (NHM)	Berlin (7 T)	H ₂ O dest. + Magnevist	(81 μ m) ³	(3.12 cm) ³	(384) ³	6.7 ms	30 ms	12	15 h	2A, 3, 6A-C, 3D model
<i>Caenopedina mirabilis</i> (USNM)	Berlin (7 T)	H ₂ O dest. + Magnevist	(81 μ m) ³	(3.12 cm) ³	(384) ³	6.7 ms	30 ms	12	15 h	3
<i>Diadema savignyi</i> (Aquarium store)	Würzburg (17.6 T)	Formalin + Magnevist	(40 μ m) ³	1.7x1.7x1.4 cm ³	420x420x348	2.84 ms	20 ms	22	18 h	3
<i>Salenocidaris</i> (= <i>Salenia</i>) <i>hastigera</i> (ZMB)	Berlin (7 T)	H ₂ O dest. + Magnevist	(81 μ m) ³	(3.12 cm) ³	(384) ³	6.7 ms	30 ms	12	15 h	3
<i>Arbacia lixula</i> (= var. <i>africana</i>) (NHM)	Würzburg (17.6 T)	H ₂ O dest. + Magnevist	(44 μ m) ³	1.7x1.5x1.7 cm ³	384x340x384	2.57 ms	20 ms	36	26 h	3
<i>Stomopneustes variolaris</i> (USNM)	Berlin (7 T)	H ₂ O dest. + Magnevist	(81 μ m) ³	(3.12 cm) ³	(384) ³	6.7 ms	30 ms	12	15 h	3
<i>Psammechinus miliaris</i> (BAH)	Berlin (7 T)	H ₂ O dest. + Magnevist	(81 μ m) ³	(3.12 cm) ³	(384) ³	6.7 ms	30 ms	12	15 h	1A-E
	Würzburg (17.6 T)	Formalin + Magnevist	(44 μ m) ³	1.7x1.4x1.7 cm ³	384x320x384	2.97 ms	20 ms	22	15 h	2B
<i>Psammechinus miliaris</i> (ZMB)	Berlin (7 T)	H ₂ O dest. + Magnevist	(81 μ m) ³	(3.12 cm) ³	(384) ³	6.7 ms	30 ms	12	15 h	1F
<i>Strongylocentrotus purpuratus</i> (CAS)	Berlin (7 T)	H ₂ O dest. + Magnevist	(81 μ m) ³	(3.12 cm) ³	(384) ³	6.7 ms	30 ms	12	15 h	3
<i>Mespilia globulus</i> (ZMB)	Würzburg (17.6 T)	H ₂ O dest. + Magnevist	(36 μ m) ³	(1.4 cm) ³	(384) ³	2.65 ms	20 ms	40	33 h	3
<i>Echinoneus cyclostomus</i> (NHM)	Berlin (7 T)	H ₂ O dest. + Magnevist	(86 μ m) ³	(3.12 cm) ³	(384) ³	6.7 ms	30 ms	12	15 h	2C, 4, 5A
<i>Echinolampas depressa</i> (USNM)	Berlin (7 T)	H ₂ O dest. + Magnevist	(81 μ m) ³	(3.12 cm) ³	(384) ³	6.7 ms	30 ms	12	15 h	4, 5B
<i>Echinocyamus pusillus</i> (BAH)	Würzburg (17.6 T)	Formalin + Magnevist	20x18x18 μ m ³	5.0x4.5x4.5mm ³	(256) ³	3.27 ms	20 ms	32	12 h	2D, 4
<i>Pourtalesia wandeli</i> (NHM)	Berlin (7 T)	H ₂ O dest. + Magnevist®	(86 μ m) ³	(3.3 cm) ³	(384) ³	6.7 ms	30 ms	12	15 h	4, 5C
<i>Abatus</i> (= <i>Hemiaster</i>) <i>cavernosus</i> (ZMB)	Berlin (7 T)	H ₂ O dest. + Magnevist	(81 μ m) ³	(3.12 cm) ³	(384) ³	6.7 ms	30 ms	12	15 h	4, 5D