	i rö	20	зó	40	50	60	7 º	80
Merlin_human Merlin_mouse	MAGAIASRMSESSI MAGAIASRMSESSI MAGAIASRMSESSI MAGAIASRMSESSI MAGAIASRMNETSI MAGAIASRMSESSI	LKRKQ PKTFTVRI LKRKQ PKTFTVRI	IVTMDAEMEFN IVTMDAEMEFN	CEMKWKGKDI CEMKWKGKDI	FDLVCRTLGL. FDLVCRTLGL	RETWFFGLQYT RETWFFGLQYT	. IKDTVAWL . IKDTVAWL	KMDKKVLDHDVSKE KMDKKVLDHDVSKE
Merlin_chicken Merlin_frog	MAGAIASRMS FSSI MAGAIASRMN FTSI	LKRKQPKTFTVRI LKRKQPKTFIVRI	IVTMDAEMEFS IITMDAEMEFN	CEVKWKGKDI CEMKWKGKDI	FDLVCRTLGL FDLVCRTLGL	RETWFFGLQYT RETWFFGLQYT	. IKDTVAWL . VKDTIAWL	KMDKKVLDHDV?TE KMDKKVLDHDV?KE
Merlin_zebrafis Moesin_human	h MASALASKMGLS.	LRRKQ KIFNVIV	VTMDADLEFS	IOPNTT GKOL	FELVCRTLGL	RETWFFGLQY) REVWFFGLQYQ	.VKDTVAWL DTKGFSTWL	KMDKKVLDHDVPKE KLNKKVTAODVRKE
-								
	<u>F1</u>							
Merlin human	90 100 BEV FHFLAKFYPI	110	120 HLFFLQ.VKK	130 QILDEKIYCE	140 PEASVLLASY	150 AVQAKYGDYDP	160 SVHKRGFLA	170 EELLPKRVINLYQ
Merlin mouse Merlin chicken	EPVTFHFLAKFYP1 EPVTFHFLAKFYP1	SNAESELVQEIT( SNAESELVQEIT( SNAESELVQEIT(	HLFFLQ.VKK	OFFDEKIMOS	PEASVLLASY	AVQAKYGDYDP AVQAKYGDYDP AVQAKYGDYDP	SVHKRGFLA NVHKRGFLA	EELLPKRVINLYQ EELLPKRVINLYQ EELLPKRVINLYQ EELLPKRVINLYQ
Merlin frog	EPVTFHFLAKFYP h EPIVFYFLAKFYP	NVEBELVODITO	HLFFLQOVK HLFFLQ.VK	QILEEKIYCE SILEEEIYCE	PE <mark>AS</mark> VLLASY PE <mark>AS</mark> VLLASY	AVQAKYGDYDP AVHAKYGDYNP	SVHKRGFLA NVHKPGFLS	EELLPKRVINLYQ DELLPKRVINLYQ
Moesin_human	SP <b>LL</b> F <mark>K</mark> FRAKFYP1					AV <mark>QS</mark> KYGD <b>F</b> NK		
			50					
	180 190	200	210	FERM d	230	240	250	260
Merlin_human	MTEEMWEERITAW MTPEMWEERITAW MTPEMWEERITAW MTPEMWEERITAW MTPEMWEERITAW	AEHRGRARDEAN	MEYLKIAQDI	EMYGVNYFRI Emygvnyfri	RNKKGTELLL	GVDALGLHIYD GVDALGLHIYD	PENRLTPKI	SFPWNEIRNISYSD
Merlin_chicken	MT PEMWEERITAW	AEHRGRARDEAN	MEYLKIAOD	EMYGVNYFAI	RNKKGTELLL	GVDALGLHIYD GVDALGLHIYD	PDNRLTPKI	SFPWNEIRNISYSD
	h MTAEMWEERITVC	AEHRGREDEAL	MEYLKIAQDI	EMYGVNYFSI	RNKKGTSLLL	GVDALGLHIYD	LDNRLTPKI	SFPWNEIRNIS¥SD GFPWSEIRNISFND
Moesin_human	TUNDOMEEKIQVW	BEIRGULREDA	<b>BEILKINGD</b>	EWIGANIL <mark>S</mark> I	KNKKGSELWL	GAD WEGT MIIF	QNDRLTPR	FPWSEIRNISFND
				F3				
Manilda human	270 280	290	300	310	320	330	340	350
Merlin_human Merlin_mouse Merlin_chicken	KEFFIKPLDKKID	V F K F N S S K L R V N F	LILQLCIGNH	DLFMRRRKAL	SLEVQQMKAQ	AREEKARKOME AREEK <mark>AR</mark> KOME	RORLAREKO	MREEAERTRDELER MREEAERTRDELER
Merlin_frog Merlin_zebrafis	KEFTIKPLDKKID KEFTIKPLDKKID KEFTIKPLDKKID KEFTIKPLDKKID	FKFNSSKLRVN	LILOLCIGNH	DLFMRRRKAL	SLEVQQMKAQ	AREEKARKOME	RORLAREKO	MREEAERTRDELER MREEAERTRDELER MREEAERTRDELER LREEAERARDELER LREDAERARDELOR
Moesin_human	KKFVIKPIDK <b>KA</b> P	DEVEYAPRLRINE	RILELCIGNH	ELYMRRRK	TIEVQQMKAQ	AREEK <mark>HO</mark> KOME	RAMLENEKK	KEMAEKEKIER
	Coiled co	il domain	380	390	400	410 4	20	430 440
Merlin_human								
Merlin_mouse Merlin_chicken	RLLOMA	SEATMANEATMR	SEETADLLAEK	AQITEEBAKI	I AO KAABAEO	EMORIKATAIR EMORIKATAIR	TEEEKRLME	OKVLEAEVLALKMA OKVLEAEVLALKMA OKVLEAEMLALKMA OKVMETEMLAIKMA OKMLEAEMIALKMA
Merlin_frog Merlin_zebrafis	h	DEAHLANEALLRS	SEETADLLAEK	AQIAEEBAKI	I AQKAABABQ	EMQRIKATAIR	SEEEKRLME SEEEKRLME	KMLBABMIALKMA
Moesin_human	BKEBLME <mark>RI</mark> K <b>ot</b> bi	SOTKKROOELEEC	TRRALENEOE	RKRAOSEAEK	I <mark>ak</mark> eroeaee	AKEALLOASR.	DORKTOR	LALEMAELTARIS
	Helics	Region						
		al Region	470	480	490	500	510	520
Merlin_human Merlin_mouse	EESERRAKEADQL) EESERRAKEADQL)	KQD LOE ARE AERE	RAKQKLLDIAT	<b>K</b> P <b>T Y</b> P P	MNPIPPPLPP	DIPSFDIIADS	LSFDFKDTD	MKRLSMEIEKEKVE MKRLSMEIEKEKVE
Merlin_chicken Merlin_frog	EESERRAKEADQLI EESERRVKEAEQLI h EESERRAKEADQLI	KQDLOEARESERE KQDLOEARDSERE	RAKQKLLDITS	KSSYTQS KTSYMQAAGA	MNSSTTALPT Asssstvppt	DLPSFNLISES DVPSFSMLSDS	LSFDFKDTD LPYDFKDTD	MKRLSMEIEKEKVE MKRLSMEIEKEKVE MKRLSMEIEKEKVE
Meriin_zebraiis Moesin_human		EWOOKAOMVOEI				BQDEQDENGAE		MAKDRSDEDRTT
C-terminal tail domain								
	α1 530 540	<u> </u>	560	570	α2-4	580	590	→
Merlin_human	YMEKSKHLOEQIN	EEKTEIEALKLKE	RETALDILEN	ENSDRGG.S.		SKHNTIKKLTL	QSAKSRVAF	
Merlin mouse Merlin chicken	YMEKSKHLQEQLNI YMEKSKHLQEQLNI	<b>IKTDIEALKLK</b> E	RETALDILHN	ESSDRGGPS. ENASRGN		SKHNTIKKLTL	QSAKSRVAF QSTKSRVAF	FEEL
	YMEKSRHLQEQLNI h YMEKSKHLQEQLNI	<b>IKTEIE</b> S LKLKH	ERETPLDILHN			SVIHSVCQLTL SKQSNFKKLTL	QSTKSRVAF	FOEL
Moesin_human	EAEKNERVOKHLKI	ALTSELANARDES	KKTANDMIHA	ENMRLGR		DKYKTLRQIRQ	GNTKQRIDE	FESM

Supplementary information, Figure S2. Sequence alignment of the full length Merlin across different species and with human Moesin. The domains are boxed with the same color code as in Figure 1.