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SUPPLEMENTARY MATERIAL

corresponding to:

Expression of the novel gene *Ened* during mouse and *Xenopus* embryonic development

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Α

	1	10	20	30	40	50	60	70	80	90	100	110	120	130
Mouse Human Horse Opossum Chicken		IKPGQLINH IKPGQLINH IKPGQLINH	FICSLCVPRV0 FVCSLCIPRV1	RKLWSSRRPR CKLWSSRRPR LRLWSSRRPR	TRRNLLLGTA TRRNLLLGTA TRRNLLLGTA	C <mark>AI</mark> YLGFLVS0 CAIYLGFLVS0 CALYLGFLVS0	QVGRASLQHG QVGRASLQHR QVGHVSLQHR	QATORGPPNG- QAAEKGPHRS- RAAEKGPRQS- RAPQKGPHRN- Ggy <mark>e</mark> tiss R SI	-RDTAEPSFPI -RDTAEASFPI -LDAAGTSFL	EIPLDGTLAPI EIPLDGTLAPI ELPLDGTLAPI	PESQGN PESQGN PESQGN	IGSTLQPNVVY Igttlqpnvvy Igttlqpnvvy	ITLRSKRSKP ITLRSKRSKP ITLRSKRSKP	ANIRGT ANIRGT ANIRGT
	131	140	150	160	170	180	190	200	210	220	230	240	250	260
House Hunan Horse Opossun Chicken	VKPKRRKKYAYASAAPDOEVLVRPSLIQOEAARAADAEVPGYVQG-YLTKVGERPHRVLGGPGVRTRGSNLQOPRARESNIRIYSESAPSHLSKEDIRRHRLLADSEVASILPI-SKSGTRLLVLEGGF VKPKRRKKYAYASAAPGOEHLVGPSLQPGEAARAADAEGYAYAGGANLVKIGERPHRLURGGPGVRGGRSDFQLPKSRESNIRIYSESAPSHLSKEDIRRHRLLADSAVAGLRPVSSRSGARLLVLEGGAP VKPKRRKKYAYASLDPGGEALVGPSLQPEAARAADAEVPGYVGGANLAKVGERPHRLIRGGPGRGGRSDFQLPKTRESNIRIYSESAPSHLSKEDIRRHRLLADGAVAGUPVSKSRSGARLLVLEGGAP VKPKRRKKYANISLQPGQEALVGPSLQPEAARAADAEVPGYVGGANLAKVGERPHRLIRGGPGRGGRSDFQLPKTRESNIRIYSESAPSHLSKEDIRHRLADGAVAGUPVSKSRSGARLLVLEGGAP VKPKRRKKYANISLQPGQEALVGPSLQPEAARAADAEVPGYVGGANLAKVGERPHRLIRGGPGRGGRSDFQLPKTRESNIRIYSESAPSHLSKEDIGHQLADGAVASVQPVSKSRGARLLVLEGAAP VKPKRRKKYALALSLQPGQEALVGPSLQPEAARAADAEVPGYVGAVALAUGANLAUGA VKPKRKKKHISLGQEALVGGANAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA													
	261	270	280	290	300	310	320	330	340	350	360	370	380	390
Nouse Hunan Horse Opossun Chicken	GAVLE GAEPO NIMPS		LKOPLDHSEVE LKOPLDHSEVE LKOPLDHSEVE	FAFHLDRILGI FAFHLDRILGI FAFHLDRILGI	LNRTLPSVSR LNRTLPSVSR LNRTLPSVSR	KAEFIQDGRPO KSEFIQDGRPO KSEFIQDGHPO	CPIILNDASL CPVILNDSSL CPVILNDSSL	ASASNDSHSS SSASNDTHSS SPTSNETHSS APTDNESHSS SPTDNNTHSS	KL THGTYQQI IKL THGTYQQI IPL THGAYQQI	LLKQKCHQNG Llkqkchqng Llkqkchqng	RVPKPESGCTE RVPKPENGCTE RAPKAENGCTE	IHHHENSKMA IHHHENSKMA VHHHENSKMA	LFDFLLQIYN LFDFLLQIYN LFDFLLQIYN	RLDTNC RLDSNC RLDVNC
	391	400	410	420	430	440	450	460	470	480	490	500	510	520
Mouse Hunan Horse Opossun Chicken		RKEDACVQ RKEDACVQ RKEDACQL	NGLRPKCDDQU NGLRPKCDNQU KgyrrkcDnpu	GSAALAHIIQA DAVALAHIIQA DTYELTHIYQA	RKHDPRHLVF RKHDPRHLVF RKHDPRHLVF	IDNKGFFDRSI IDNKGFFDRSI IDNKGFFDRSI	EDNLNFKLLE Ednlnfklle Ednlnfklle	GIREFPESAVS GIREFPASAVS GIREFPESAVS GIREFPESAVS GINEFPESAVS	SVLKSQHLRQI Svlksqhlrqi Silkshhlrei	KLLQSLFLDK KLLQSLFLDK KLLQSLFLDK	/YHESQGGROC /YHESQGGROC /YHESQGGROC	GIEKLIDVIE GIEKLIDVIE GIEKLIDVIE	IRAKILITYIN IRAKILLTYIN IRAKILLTYIN	HGYKY HGAKY
House Hunan Horse Opossu n Chicken	S25													
	1	10	20	30	40	50	60	70	80	90	100	110	120	13
House Xenopus	VEPAQL	QQLLSLCR						ACAIYLGFLV Asaiygivia						
	131	140	150	160	170	180	190	200	210	220	230	240	250	260
House Xenopus	LQPNYYYITLRSKRSKPANIRGTYKPKRRKKYAVASAAPDQEVLVRPSLIQQEAARAADAEVPGYYQGYLTKYGERPHRYLRGPGYRTRGSNLQQPRARESNIRIYSESAPSHLSKEDIRRMRLLADSE LQPNY-YITLKTKRSKPANIRGTYRPKKRRKYGARRPGYYQDTESKKDTLHSKYPNSQHKSQAQSHIRGIDGHRGGRGTHQSNIRIYSDSAPPHFTKEDISAMRFLSDSR													
	261	270	280	290	300	310	320	330	340	350	360	370	380	390
	ASILPISKSGTRLLYLEGSTSGSVPGCGPSPCGLLKQPLDHSEVFAFHLDRILGLNRTLPSVSRKLEFIQDGRPRPIILHDSSLASASNDSHSSVKITHGTYQRLLKQKCHLNGRYPRPEHDCTE GHIKQNLLLFESDQTPLHKHPVPPVGSGDCQGQCGVIKRPLDHSEVFAFHLDRYLGLNRTLPSVSRSLEFVQDGQPCPVILHDPSLLPTDNKTQSSIKLKHGTYQEHLRHKCHLNGKAPKADLGCTE													
	391	400	410	420	430	440	450	460	470	480	490	500	510	520
House Xenopus	I													
	521	530	540	550										
House Xenopus	EKLID	IERRARIL	ITYINAHGAR	VLPHNE										

Supplementary Fig. S1. Ened sequence comparison and analysis. Mouse Ened nucleotide sequence and the partially sequenced mouse Ened orthologue of Xenopus laevis was translated to amino acid sequence with the Transeq software (http://www.ebi.ac.uk/emboss/transeq/). Identical residues are depicted in red and biochemical similarities are depicted in blue. (A) Multiple alignment of Ened amino acid sequence with predicted amino acid sequences for mouse, human, horse, opossum and chicken using MultAlin software (http://bioinfo.genopole-toulouse.prd.fr/multalin). The transmembrane amino acid sequence at the N-terminal was predicted using TMpred software (http://www.ch.embnet.org), and is marked with an open box. (B) Alignment of mouse Ened with the orthologous Xenopus laevis Ened amino acid sequence showed stretches of identical sequence regions between the two species. (GenBank Accession Nos. Mouse: EU797522; Xenopus laevis: EU746496; Human: NP001026870.1; Horse: XP001500550; Opossum: XP001366268.1; Chicken XP420382.2).

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