

L.infantum	1	MPLTAACMRRLMROMQEVEQEHFV	DGVQVRPADSMSEYHFDLDGPEGTPFAAGRFHVALIFDEQYPEVPPK	GFFRTKIFHPNISERGDI
L.donovani	1	MPLTAACMRRLMROMQEVEQEHFV	DGVQVRPADSMSEYHFDLDGPEGTPFAAGRFHVALIFDEQYPEVPPK	GFFRTKIFHPNISERGDI
L.braziliensis	1	MPLTAACMRRLMROMQEVEQEHFV	DGVQVRPADSMSEYHFDLDGPEGTPFAAGRFHVALIFDEQYPEVPPK	GFFRTKIFHPNISERGDI
L.major	1	MPLTAACMRRLMROMQEVEQEHFV	DGVQVRPADSMSEYHFDLDGPEGTPFAAGRFHVALIFDEQYPEVPPK	GFFRTKIFHPNISERGDI
L.mexicana	1	MPLTAACMRRLMROMQEVEQEHFV	DGVQVRPADSMSEYHFDLDGPEGTPFAAGRFHVALIFDEQYPEVPPK	GFFRTKIFHPNISERGDI
T.cruzi	1	MSICASAMRLMROMQEVEQEHFV	DGVQVRPADSMSEYHFDLDGPEGTPFAAGRFHVALIFDEQYPEVPPK	GFFRTKIFHPNISERGDI
Arabidopsis_tha	1	EPCHIKKISISILSISLSSSSMASQSALLQKQLKDLCKHPVDGFSAGLVDEKNIFEWSVITICPPDTLYEGGFNAIMTFPQNYNS		
Homo_sapiens	1	MSGILSLRLAQEIKAWRKDHPPGFVAVPTKNDGTMNLMNNECAIPGKKGTPEWGGFLFKLRMLFKDDYSSSPPKC	MFEPDLFHPNVYP	
Xenopus_laevis	1	MAKKRIQKELMDLQRDPPAQCSAGPVGEDLFHWQATIMGPNDS	FQGGVFFLTIFPTDYPPFKPKVAPTTKIYHPNINS	GSICLDI
Oryctolagus_cun	1	MSTARRRLMRDFKRLQEDPPVGVSGAPSENNIMQWNAVIFGPEGTPFEDGTFLVIEFSEIYPNKKPTVRLSKMFPNPNVYADGSIC		
Crithidia_fasci	1	MPLTAACMRRLMROMQEVEQEHFV	DGVQVRPADSMSEYHFDLDGPEGTPFAAGRFHVALIFDEQYPEVPPK	GFFRTKIFHPNISERGDI
Drosophila_mela	1	MTAPRRLRKELSDLQGNALKSFRDIKADDDNLLRWTLGLIVDNE	PYNKGA	FRIEINFPAEYPPKPPKINFKTRIYHPNIDEKGQVCLP
Mesocricetus_au	1	MSTPARRRLMRDFKRLQEDPPAGVSGAPSENNILVWNAVIFGPEGTPFEDVYADGSICLDILQNRWS	PTYDVSSILTSIQSLLEPNP	
L.infantum	96	DWAPTLGLRHILVIRCLLIEPN	ESALNEEAGRLLLEVAAYERKAAMYTAIN	AARPNGVPRFTLPEVQAEKASSLVTADASAPVAG
L.donovani	96	DWAPTLGLRHILVIRCLLIEPN	ESALNEEAGRLLLEVAAYERKAAMYTAIN	AARPNGMPRFTLPEVQAEKASSLVTADASAPVAG
L.braziliensis	96	DWSSTLGLRHILAVIRCLLIEPN	ESALNEEAGRLLLEVAATEERKAAMYTAIN	AARPNGVPRFTLSEAEKASRSATADISTGVDA
L.major	96	DWSPTLGLRHILVIRCLLIEPN	ESALNEEAGRLLLEVAAYERKAAMYTAIN	AARPNGVPRFTLPEVKAEEKASSVTACASAGAA
L.mexicana	96	DWSPTLGLRHILVIRCLLIEPN	ESALNEEAGRLLLEVAAYERKAAMYTAIN	AARPNGVPRFTLPEVKAEEKASSVTADASAPVNA
T.cruzi	96	DMKPSLGLRHILVIRCLLIEPN	ESALNEEAGRLLLEDAVAAERKAAMYTAIN	AARPNGVPRFTLPEVKAEEKASSVTADASAPVNA
Arabidopsis_tha	96	SDMHPNVSVDGRVCISILHPGDDPSGYELASERWTPVHTVESIMLSIISMLSGPNDES	PANVEAAKEWRDKRDEFKKVSR	CVRKRS
Homo_sapiens	96	ILEEDKDWKPAITIKQILGLIQELLNEPNI	QDPAQAEAYTIYCNQNRVEYEKRVRA	QAKKFAES-----
Xenopus_laevis	96	ALTYSKVLSLCSLLCDPNPDDPLVPEIAHTYKADREKYNRLAREWTQK	AM-----	
Oryctolagus_cun	96	WSPTYDVSSILTSIQSLLEPNPNSPANQAAQLYQENKREYEKRVSAIVEQSWNDS		
Crithidia_fasci	96	DWTPNVGLRHILAVIRCLLIEPN	ESALNEEAGRLLLEDAVATEERKAAMYTAIN	AARPDGAPRYTLPGEEGRAPAATSAAPTAVSGG
Drosophila_mela	96	KPATRTDQVVQALVDLINDPEPEHPLRAELAEEL	LKDRKKFVKNAEDYTKKHSEKRPAD	-----
Mesocricetus_au	96	AAQLYQENKREYEKRVSAIVEQSWRDC	-----	
L.infantum	191	TAAASASSMANGSTPSTATRRLTLSEANCHPGAATAAEKAEKSKKKALRRI	--	
L.donovani	191	TAAASASSMANGSTPSTATRRLTLSEANCHPGAATAAEKAEKSKKKALRRI	--	
L.braziliensis	191	TAGASLSLTGDSVPSASARKLAPSEANCHRGPNAATDKVEKSKKKALRRI	--	
L.major	191	AAAAAASSMANGGAPSTATRGLTLSEANCHPGSATAAEKAEKSKKKALRRI	--	
L.mexicana	191	TPAASASSMANSSAPSTATRRLTLSEANCHPGSATAAEKAEKSKKKALRRI	--	
T.cruzi	191	SEGFVSSQLRNASESALNKRSVAVSGTSTNVVASKKAVEKKRAALKRRI	-----	
Arabidopsis_tha		-----		
Homo_sapiens		-----		
Xenopus_laevis		-----		
Oryctolagus_cun		-----		
Crithidia_fasci	191	SRLTPSEANCHPGSAAAADKVEKSKKEAEKSKKKALRRI	-----	
Drosophila_mela		-----		
Mesocricetus_au		-----		

Figure S1. Comparative alignment of the primary structure of the LiUBC1 protein. The degree of conservation is represented in gray scale both in species of the trypanosomatid family and in different eukaryotes.

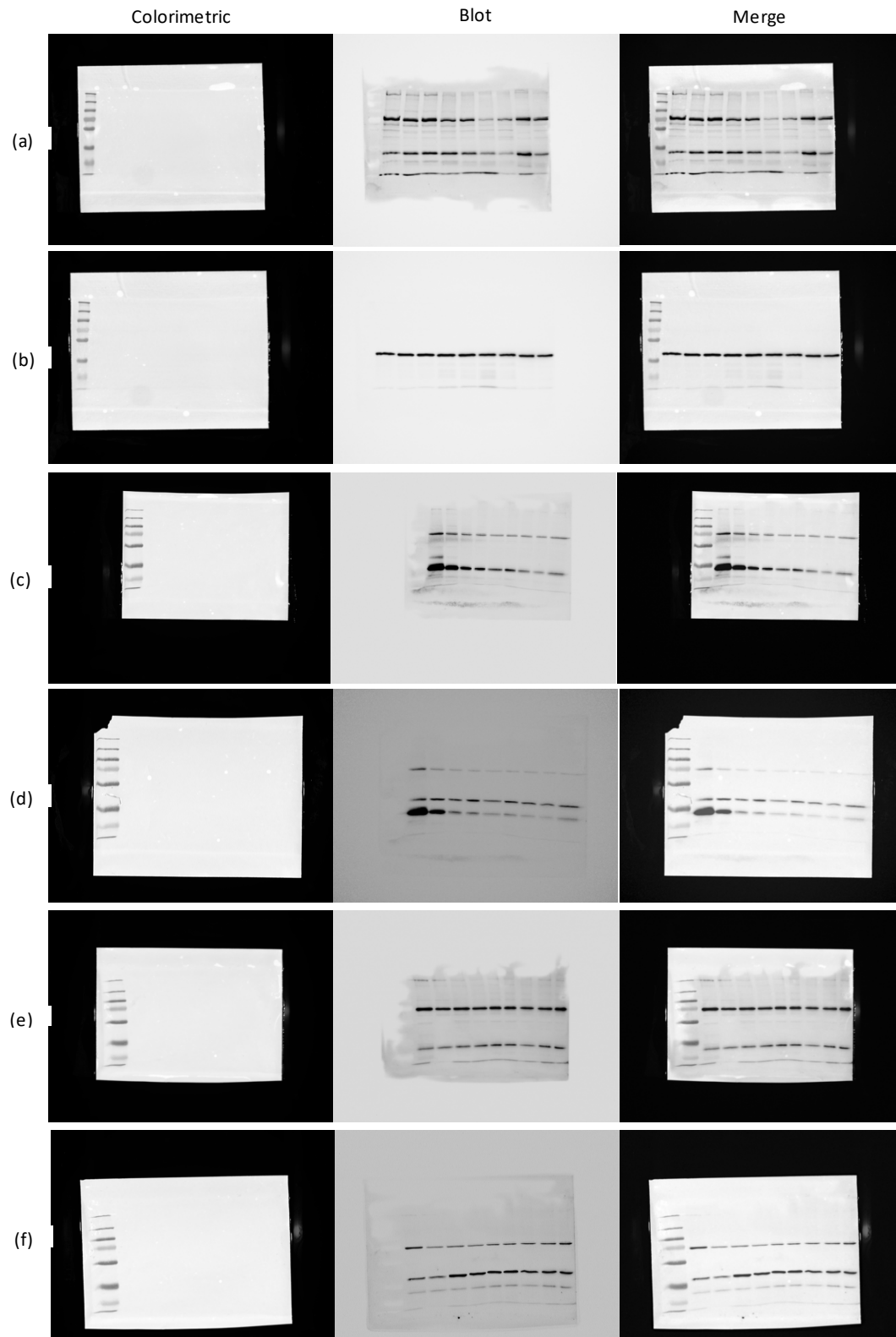


Figure S2. Raw Western Blot Images. Densitometry readings are in supplementary materials. **(a)** LiUBC1 expression pattern corresponding Figure 4(b) **(b)** LiUBC1 expression pattern antigAPDH corresponding Figure 4(b) **(c)** Western blot pattern of the LiUBC1 protein throughout growth of pIRmcs3 control transfectants corresponding to Figure 7(b) **(d)** Western blot pattern of the LiUBC1 protein throughout growth of pIRmcs3 control transfectants antigAPDH corresponding to Figure 7(b) **(e)** pIRmcs3-LiUBC1 knock-in promastigotes corresponding to Figure 7(c) **(f)** pIRmcs3-LiUBC1 knock-in promastigotes antigAPDH corresponding to Figure 7(c).