Figure 10: The 18.2 kDa family of putative salivary secreted proteins of *Ixodes scapularis* and *I. pacificus*. ClustalX sequence alignment (A) and dendrogram (B) showing bootstrap values above 50%. *I. pacificus* sequences are shown in blue.

A

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IXOPA_51011570              C-NDNEFHEPGYAPGCTYPCTTGNVGESNIQRKEYKNATVCAEFQDNDD-TKLDHVGVCFNGECLEHKERCPDCTESLLEQRWSS
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IS-ALL-328                  C-PDKEFDDPGYSLGCIYTCVNGDQADNRTYWGRYKDATVCVNLTDDKP-ENFNNIGTCKDGECVEYKK-------ENIQDVWST
IS-6-12-J-CLUSTER-88        C-PDKQFDDPGYSLGCTYTCVSGNQGDNRTYYGYYKDATVCVDLTDDDP-EKFNHIGICEKGKCVEYKK-------ANIEEVWNR
IS-6-12-J-CLUSTER-14        C-PDKSFDDPGYSLGCTYPCKNGNPQDPNTYWGRYSDGTVCVVLEGDDS-DKLDHIGTCEKGICVEYKQ-------ENIHDVWSK
IXOSC_22164316              C-EDKVFEDPGYSLGCTYTCENGNTSDDTVYWGIYKDATVCVDLQDGDP-NQFNHIGICKSGICVEYKE-------ENIQQVWST
IS-18-24-CLU37PUTATIVE      CRPDNGYPAEGYARSCKYLCSNGLGYE----TRNYDDATFCFVFYGEGN-TTLHHLGKCVNGECEPENR----------AADGTL
IS-6-12-J-CLUSTER-26        CGQPD-YPAPGYAPSCDRKCRDGDGVEQ---TENYACGTFCFVKYSDDDDDALYYLGHCNDGKCLPDNR----------DADGRP
ISN-L-33                    CTSDAYDNYPGFAPGCTRNCTNNYEVEP---ARRYNDGVFCFASNPDGS---FKHLGACYEGVCQEEPR----------GPNGQL
                                     *:: .*   *  .  :       *  ...*          :  :* * .* *    .

IXOPA_51011570              LPELAAQFHRCPTLNQ-STPVVSCLYVCKDIYDEVEKEGYFYGIYKDGNPCTLENG-NEGVCRSGWCYR------KEVINPHSVR
IXOPA_51011468              LPELAAQFHRCPTLNQ-STPVVSCLYVCKDIYDEVEKEGYFYGIYKDGNPCTLENG-NEGVCRSGWCYR------KEVINPHSVR
IXOPA_51011470              LPELAGEFHRCPTLDE-STPVEKCLYICKDTYDEVEKVGYFYGIYGDGNPCKLADG-KEGVCRSGWCYR------KEVLNPPSVR
ISNU-CLUSTER-232            LPELAAEFHRCPDLSE-SDPVKNCLYVCKATHDNG-KEGYFYGIYKDGNPCTPAGG-DEGTCRSGWCYK------K---------
IS-ALL-328                  LPETQSQFHNCDPKSS-KEPVDKCLYICRK-PQPDNKTGYFFGIYQDYHSCNLGGGGGNGQCRSGLCV--------KINGTYPIE
IS-6-12-J-CLUSTER-88        LPQTHGQFHKCKPKSS-MKPVEKCMHICKE-YQSSEKYGYFFGIYLDYTVCNLADG-KTGECRSGLCV--------ETTGTYPIE
IS-6-12-J-CLUSTER-14        LPETQPEFRDCEDKSS-KEPVKKCLHICNK-THSVGKYGLFLGIYLDHTPCKFETG--PGRCRSGLCID------EKIGQLYPIE
IXOSC_22164316              LPETQAQFHHCLRMSS-KDPVDSCLYICKK-HHH-GKERYFYGAYEDSNKCNLKNG-DIGVCLSAFCHGPEYFPPIDNGPLKPSK
IS-18-24-CLU37PUTATIVE      PHQWDDIYHQCKDLESYQEPVVNCTYICVKEQASYELQEYYYGIYRIPSKCWLG-S-EVGVCVSGICHSGKDFPQIDQGPQHPPQ
IS-6-12-J-CLUSTER-26        PHQWDAEYHKCLDKRS-ETPVKNCTYICQVEKESYRPIEYYYGIYRHTG-CKYGDG-KTGICRSGFCENPDLFPSIDEGSIKPKE
ISN-L-33                    PNQWADEYHMCASNTSLNTPVTNCAFICKMKREQHLPEGYFFGIFKHPSKCELGNG-KIGVCASGHCTDPELYPKIDDGELKPSS
                              :   :: *    .   ** .* .:*           : * :     *    .   * * *. *
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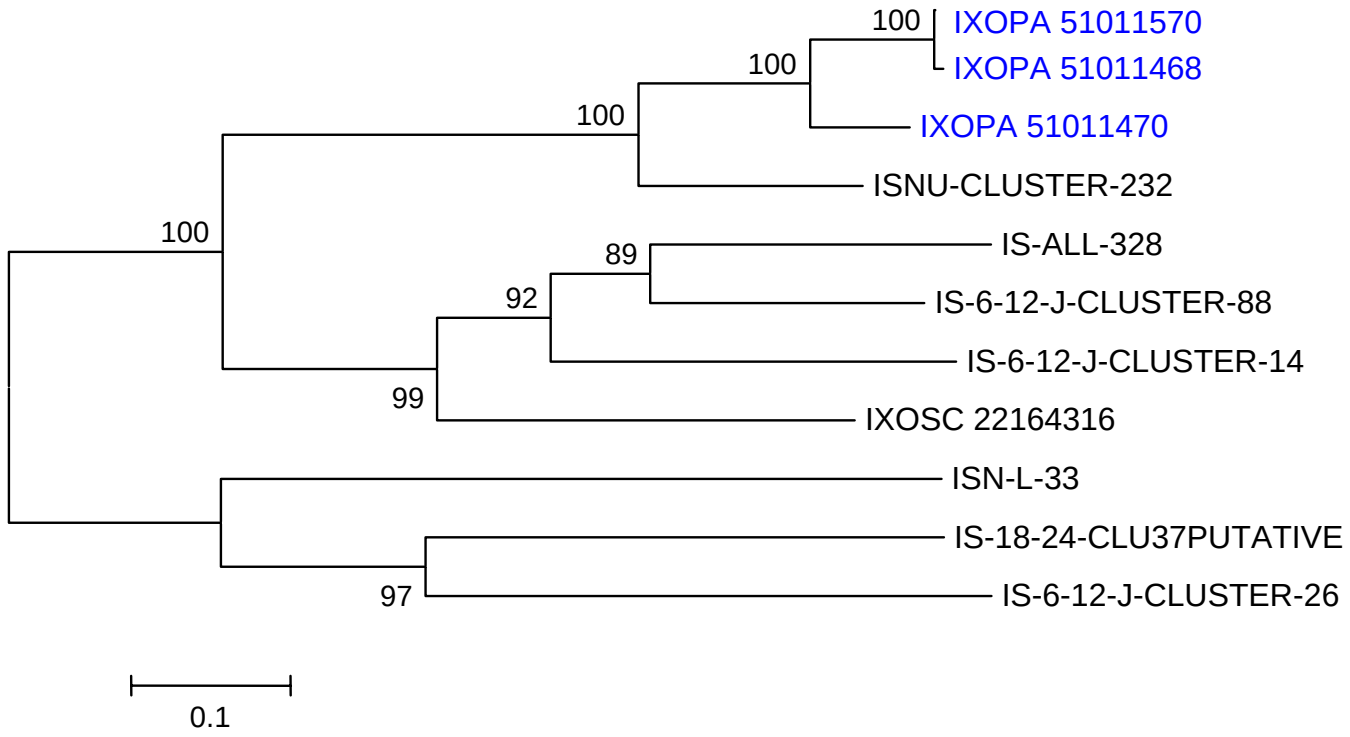
B