

A) Comparison Osteonectin in *Bos taurus* (b, NP_776889.1) and oestonectin in *Protopterus annectens* (p, XP_43925350)

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b      MRAWIFFLLCLAGRALAAP-----QQEALPDETEVVEETVAEVAEVPVGANPVQV
p      MRVFLLLFFVLVSKTLAVPPIDVQEEAVFDTDQVVLDEPAAEEEVVEIEEPTVGANPVQV
      **.:::: *.:*:**.*      : : : : ..** *.*: * .*****

b      EVGEFDDGAEETEEVVVAENPCQNHCKHKGKVCELDENNTPMCVCQDPTSCPAPIGEFEK
p      ETDDFEE-PEETVEEVVAENPCLNHCKHKGKVCEDENNMPMCVCQDPSTCPTATGEFEH
      *.:*:*: .*** ***** **.*:*****:**** *****:***. *****:

b      VCSNDNKTFDSSCHFFATKCTLEGTKKGHLHLDYIGPCKYIPPCLDSELTEFPLMRDW
p      VCGNDNKTYDSSCHFFATKCTLEGTKKGHLHLDYIGPCKYIPPCMDNELSEFPFRMRDW
      **.*:****:*****:*****:*****:****.*:***:*****

b      LKNVLVTLYERDEDNNLLTEKQKLRVKKIHENEKRLEAGCDHPVELLARDFEKNYNMYIF
p      LKNVLVTMFERDEENNLLTEKQKLRVKKIFENEKRLSAG-DHSIDLLTDFVKNYNMYIF
      *****:****:*****:*****.******.* **.:*:** *****

b      PVHWQFGQLDQHPIDGYLSHTELAFLAPLIPMEHCCTRFFETCDLDNDKYIALDEWAGC
p      PVHWQFGQLDQHPVDGYLSHTELAFLAPLIPMEHCCTRFFTECDTSDRYIALEEWAAAC
      *****:*****:***** ** *.*:****:***.*

b      FGIKEKDIDKDLVI
p      FGIKEQDIDKNLVI
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B) Comparison between Human Alkaline phosphatase (AAB59378.1) and Alkaline phosphatase in *Protopterus annectens* (p, XP_043926613.1)

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h      MISPFVLVAIGTCLTNSLVPEKEKDPKYWRDQAQETLKYALELQKLNTNVAKNVIMFLGD
p      -----

h      GMGVSTVTAARILKGQLHHNPGEETRLEMDKFPFVALSKTYNTNAQVPDSAGTATAYLCG
p      -MGVTTVTAARILKGQLEGQSGEESLTMDTFPNIALSKTYNVDYQVPDSAGTATAYLCG
      ***:*****. :.*** * **.*:*****.: *****

h      VKANEGTVGVSAATERSRCNTTQGNEVTSILRWAKDAGKSVGIVTTTRVNHATPSAAYAH
p      VKGNYGTIGLNAKAKRYQCSTSKGNEVTSILKRAKDAGKSVGIVTTTRVQHASPAGAYAH
      **.* **:*. * :.* :*.*:*****: *****:***:*.****

h      SADRWDYSDNEMPPEALSQGCKDIAYQLMHNIRDIDVIMGGGRKMYPKNKTDVEYESDE
p      ISDRWDYGDADMPADAISSGCKDIAYQLVHNG-DINVILGGGRKMYFPAGTPDPEYPS
      :*****.* :*.*:*.*****:*** **:*:*****:*. ...* ** *:.

h      KARGTRLDGLDLVDTWKSFKPRYKHSFIWNRTELLTLDPHNVDYLLGLFEPGDMQYELN
p      SKAATRKDNRTLVDNLSSR--KKAIVVWKKADFDVDESTTDYLMGLFEPGDMKYELN
      . .** * . **: * * : *:: :::: :.* ..***:*****:***

h      RNNVTDPSLSEMVVAIQILRKNPKGFLLVEGGRIDHGHHEGKAKQALHEAVEMDRAIG
p      RDKTMDPSIVEMTEKAIKILHKNPKGFFLFVEGGRIDHGHHTKAKMALTEAVLFDQAIAK
      *:.. ***: **. **:*:*****:*****: *** ** *** :*:**

h      QAGSLTSSDRTLTVVTADHSHVFTFGGYTPRGNSIFGLAPMLSDTDKKPFTAILYGNPGP
p      RASELTSESRTLTVVTADHSHVFTFGGYTVRGNPIFGLASSVAS-DKKNFTSILYGNPGP
      :*.***.***** ***** **.*:*****

h      YKVVGGERENVSMDVYAHNNYQAQSAVPLRHETHGGEDVAVFSKGPMAHLLHGVHEQNYV
p      YANTSEGRPNVNANTGENKDYMQQTAVPLDSETHGGEDVAIFSKGPMAHLLHGVQEQSYI
      * .. * ** . :*: * :**** *****:*****:***.*:

h      PHVMAYAACIG---ANLGHCAPASSAGSLAAGPLLLALALYPLSVLF--
p      PHVMFAACIEPYTDCNLGNASSQQFPTKCSWSALIAFVILLTEKIMS
      *****:**** .***: *.:.. : .: .*:*: * : :

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