

## Supplementary material

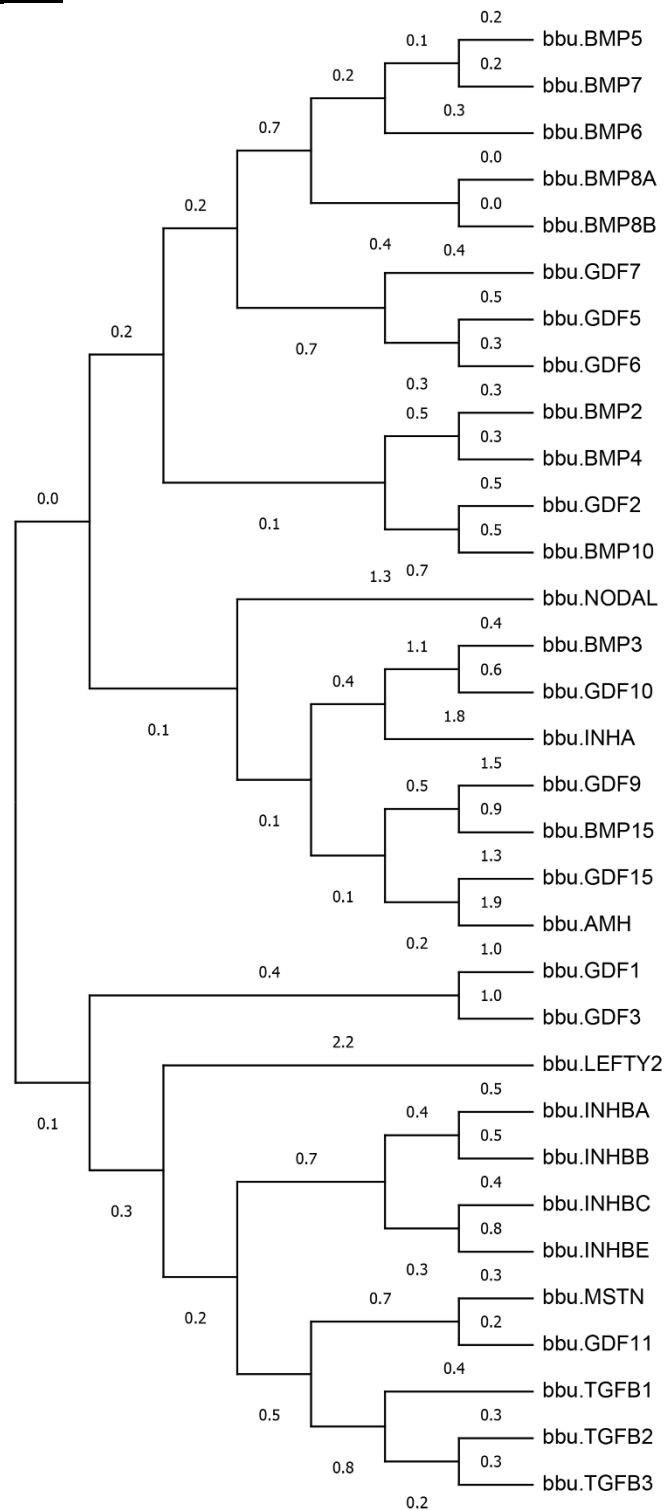


Figure S1. Molecular phylogenetic analysis of all the buffalo *TGF-β* genes for putative duplication detection

bta.TGFB2	MHYCVLSAFLLLHLVVALSSTCSTLMDQFMRKRIFAIRGOILSKLKLTPSPEDYPEPEEVPPEVISIYNSTRDLLQEKASRRAAACERERSDEEYVA	100
bbu.TGFB2	MHYCVLSAFLLLHLVVALSSTCSTLMDQFMRKRIFAIRGOILSKLKLTPSPEDYPEPEEVPPEVISIYNSTRDLLQEKASRRAAACERERSDEEYVA	100
bta.TGFB2	KEVYKIDMPSFLPSETVCPVVVTPSGSVGSLCSRQSOVFCGYLDAIPPTFYRPYFRIVRFDVSSMEKNASNLVKAEFRVFRLLQNKARVPEQRIELYQIL	200
bbu.TGFB2	KEVYKIDMPSFLPSETVCPVVVTPSGSVGSLCSRQSOVFCGYLDAIPPTFYRPYFRIVRFDVSSMEKNASNLVKAEFRVFRLLQNKARVPEQRIELYQIL	200
bta.TGFB2	KSKDLTSPTQRYIDSKVVKTRAEGEWLSFDVTDVHVEHLHKKDRNLGFKISLHCPCTFVPSNNYIIPNKSEELARFAGIDGTSTYTSQDQKTIKSTRK	300
bbu.TGFB2	KSKDLTSPTQRYIDSKVVKTRAEGEWLSFDVTDVHVEHLHKKDRNLGFKISLHCPCTFVPSNNYIIPNKSEELARFAGIDGTSTYTSQDQKTIKSTRK	300
bta.TGFB2	KNSGKSPHLLMLLPYSYRLESQOSNRKKRALDAAYCFNRVQDNCLRLPYIDFKRDLGWKWIHEPKGYNANFCAGACPYLWSSDQHSRVLSLYNTINF	400
bbu.TGFB2	KNSGKSPHLLMLLPYSYRLESQOSNRKKRALDAAYCFNRVQDNCLRLPYIDFKRDLGWKWIHEPKGYNANFCAGACPYLWSSDQHSRVLSLYNTINF	400
bta.TGFB2	EASASPCCVSODLEPLTILYVIGKTPKIEQLSNMIVKSKCS	442
bbu.TGFB2	EASASPCCVSODLEPLTILYVIGKTPKIEQLSNMIVKSKCS	442

Figure S2. Comparative amino acid analysis of buffalo and cattle *TGFB2* gene

bta.TGFB3	MHLIAKQSSSGREAAMFSSLLHDCRGLLPGLAALPGPRLKMHQLRALVLLALLNFATVSLSMSTCTILDNFNHIKKRVEAIRGOILSKRLTSPFD	100
bbu.TGFB3	MHLIAKQSSSGREAAMFSSLLHDCRGLLPGLAALPGPRLKMHQLRALVLLALLNFATVSLSMSTCTILDNFNHIKKRVEAIRGOILSKRLTSPFD	100
bta.TGFB3	PSGLASVPIQVLDLYNSTRELLEEVHGERGDVCTQANTESEYYAKEIYKFDMIQGLEHNDLTVCPKGITSKIFRNFVSSVEKNETNLFRAEFVFMFNP	200
bbu.TGFB3	PSGLASVPIQVLDLYNSTRELLEEVHGERGDVCTQANTESEYYAKEIYKFDMIQGLEHNDLTVCPKGITSKIFRNFVSSVEKNETNLFRAEFVFMFNP	200
bta.TGFB3	PASKRSEQRILFQILQPGHEIAKQRYIDGKNLPTRGTEGWLSDVTDVTRWLLRRESNLGLEISIHCPCHTFQPNGDILENIQELMEIKFKGVSDSD	300
bbu.TGFB3	PASKRSEQRILFQILQPGHEIAKQRYIDGKNLPTRGTEGWLSDVTDVTRWLLRRESNLGLEISIHCPCHTFQPNGDILENIQELMEIKFKGVSDSD	300
bta.TGFB3	PGRGDLGRLLKKKKEHPIHLIMMIFPNRLDSPGHSQRRKKRALDTNYCFRNLNCCVRLPYIDFRQDLGWKMWHEPKGYANFCSGPCPYLRSSDTHST	400
bbu.TGFB3	PGRGDLGRLLKKKKEHPIHLIMMIFPNRLDSPGHSQRRKKRALDTNYCFRNLNCCVRLPYIDFRQDLGWKMWHEPKGYANFCSGPCPYLRSSDTHST	400
bta.TGFB3	VLGLYNTLNPEASAPCCVPDLEPLTILYVIGRTPKVEQLSNMIVKSKCS	452
bbu.TGFB3	VLGLYNTLNPEASAPCCVPDLEPLTILYVIGRTPKVEQLSNMIVKSKCS	452

Figure S3. Comparative amino acid analysis of buffalo and cattle *TGFB3* gene

bta.INHBA	MPLLWLRGLFLLASCWIIIVRSSPTPGSEGHSAAPDCPSALATLPKDVNSQPEMVEAVKKHILNMLHLKKRPDVTQPVKAAALLNAIRKLHVGVGNGEY	100
bbu.INHBA	MPLLWLRGLFLLASCWIIIVRSSPTPGSEGHSAAPDCPSALATLPKDVNSQPEMVEAVKKHILNMLHLKKRPDVTQPVKAAALLNAIRKLHVGVGNGEY	100
bta.INHBA	VEIEDDIGRAEMNELMEQTSIIITFAESGTARKTLHFESKEGSDLSVVERAEIWLFLKVPKANRTSKVTIRLFQQQKHLQGSLDAGEEAEVGLKGE	200
bbu.INHBA	VEIEDDIGRAEMNELMEQTSIIITFAESGTARKTLHFESKEGSDLSVVERAEIWLFLKVPKANRTSKVTIRLFQQQKHLQGSLDAGEEAEVGLKGE	200
bta.INHBA	KSEMLISEKVVVDARKSTWHIFPVSSCIQRLDQGGKSSLDIRIACEQCOETGASVLVLLGKKKKKEEGEGKKRDGEGGAGGDEKEQSHRPFMLQARQSE	300
bbu.INHBA	KSEMLISEKVVVDARKSTWHIFPVSSCIQRLDQGGKSSLDIRIACEQCOETGASVLVLLGKKKKKEEGEGKKRDGEGGAGGDEKEQSHRPFMLQARQSE	300
bta.INHBA	DHPHRRRRRGLCEDGKVNICKCKOFFVSFKDIGWNDWIIAPSGYHANYCEGECPSHIAGTSGSSLSFHSSTVINHYMRGHSFPANLKSCCVPTKLRPMSP	400
bbu.INHBA	DHPHRRRRRGLCEDGKVNICKCKOFFVSFKDIGWNDWIIAPSGYHANYCEGECPSHIAGTSGSSLSFHSSTVINHYMRGHSFPANLKSCCVPTKLRPMSP	400
bta.INHBA	LYYDDGQNIKKDIONMIVEECGCS	425
bbu.INHBA	LYYDDGQNIKKDIONMIVEECGCS	425

Figure S4. Comparative amino acid analysis of buffalo and cattle *INHBA* gene

bta.BMP7	MHMRSLRAAAPHSFVALWAPFLFLRSALADFLDNEVHSSFIHRRLSQERREMREILSILGLPHRPRPHLQGGKHNAPMFMLDLYNAMAVEEGGPDG	100
bbu.BMP7	MHMRSLRAAAPHSFVALWAPFLFLRSALADFLDNEVHSSFIHRRLSQERREMREILSILGLPHRPRPHLQGGKHNAPMFMLDLYNAMAVEEGGPDG	100
bta.BMP7	QGSFYYPYKAVSFQGPFLASLDQSHFLTDADVMVSFVNVEHDKFFHPRYHHRFRFDLSKIPEGEAVTAAEFRIYKDYIREHFHNETFRISVYQVQLE	200
bbu.BMP7	QGSFYYPYKAVSFQGPFLASLDQSHFLTDADVMVSFVNVEHDKFFHPRYHHRFRFDLSKIPEGEAVTAAEFRIYKDYIREHFHNETFRISVYQVQLE	200
bta.BMP7	HLGRESDFLLDSRTLWASEEGLVFDITATSNHVVVNPRHNLGLQLSVETLDGQSNPKLAGLIGROGPQNKQPFMVAFKKATEVHLRSTRSTGGKQRS	300
bbu.BMP7	HLGRESDFLLDSRTLWASEEGLVFDITATSNHVVVNPRHNLGLQLSVETLDGQSNPKLAGLIGROGPQNKQPFMVAFKKATEVHLRSTRSTGGKQRS	300
bta.BMP7	QNRSKTPKNQALRVANVAENSSSDQIQACKKHELIVSFRDLGWQDWIIAPEGYAAYCEGECAPFLNSYMNATNHAIVQTLVHFINPETVPKPCCAPTC	400
bbu.BMP7	QNRSKTPKNQALRVANVAENSSSDQIQACKKHELIVSFRDLGWQDWIIAPEGYAAYCEGECAPFLNSYMNATNHAIVQTLVHFINPETVPKPCCAPTC	400
bta.BMP7	LNATSVLYFDDSSNVILKKYRNMVVRACGCH	431
bbu.BMP7	LNATSVLYFDDSSNVILKKYRNMVVRACGCH	431

Figure S5. Comparative amino acid analysis of buffalo and cattle *BMP7* gene

bta.INHBE	----MG--KVOLOLVLLWALVMAQVAGSACPSCGGP--LAPOAERALVLKAKQOILEGLQTSRPLRTHPPPKAVLTRALRRLQGRVVPFANGEQVISFA	96
bbu.INHBE	MTR--MG--KVOLOLVLLWALVMAQVAGSACPSCGGP--LAPOAERALVLKAKQOILEGLQTSRPLRTHPPPKAVLTRALRRLQGRVVPFANGEQVISFA	100
bta.INHBE	VLTDSSSTATCSSTLTFHLSTRSHHLYHARLW--VLPPLPGPLSLRIFRMGRRRRGRGSRVFLAEHQLTTPGWHALTLPSSGLKREESGVKLRLDCSF	196
bbu.INHBE	VLTDSSSTATCSSTLTFHLSTRSHHLYHARLW--VLPPLPGPLSLRIFRMGRRRRGRGSRVFLAEHQLTTPGWHALTLPSSGLKREESGVKLRLDCSF	196
bta.INHBE	EGNRIV--PQLDITAGEORFFLELKT--PKLPGAGRARRRTPSCEPATPLCCRRDHYVDFQELGWADWILQPEGYRLNYCSGOCPPHLAGSPGIAASFHSAV	296
bbu.INHBE	EGNRIV--PQLDITAGEORFFLELKT--PKLPGAGRARRRTPSCEPATPLCCRRDHYVDFQELGWADWILQPEGYRLNYCSGOCPPHLAGSPGIAASFHSAV	300
bta.INHBE	FSLKANNWPPLGTSCCVPTARRPLSLLYLRDNGNVVKTQVPMVMVEACGCS	348
bbu.INHBE	FSLKANNWPPLGTSCCVPTARRPLSLLYLRDNGNVVKTQVPMVMVEACGCS	352

Figure S6. Comparative amino acid analysis of buffalo and cattle *INHBE* gene

bta.GDF6	MDTSRVLLSAVFLISFLWDLPGFQQASISSSSSSAELGSAKGMRSRKEGRMPRAPRENATAREPLDRQEPFPPQOEPPQRRPFPQPEAREPPGRGPRVVF	100
bbu.GDF6	MDTSRVLLSAVFLISFLWDLPGFQQASISSSSSSAELGSAKGMRSRKEGRMPRAPRENATAREPLDRQEPFPPQOEPPQRRPFPQPEAREPPGRGPRVVF	100
bta.GDF6	HEYMLSIRYTSIAEKLGINASFFQSSKSANTITSFVDRGLDDLSHTPLARQKYLFDVSTLSDKEELVGAELRLFRQAPAAPWGPAGPLRLQLFACQSF	200
bbu.GDF6	HEYMLSIRYTSIAEKLGINASFFQSSKSANTITSFVDRGLDDLSHTPLARQKYLFDVSTLSDKEELVGAELRLFRQAPAAPWGPAGPLRLQLFACQSF	200
bta.GDF6	LLLEARSLDPOGAPRPGEVFDVWRGLRPOFWKQLCLELRAAWGGEGGAAED--ARA--GPQQPPPPDLRSLGFGRRVRTPQERALLVVFSSRQKTLFAEM	300
bbu.GDF6	LLLEARSLDPOGAPRPGEVFDVWRGLRPOFWKQLCLELRAAWGGEGGAAED--ARA--GPQQPPPPDLRSLGFGRRVRTPQERALLVVFSSRQKTLFAEM	300
bta.GDF6	REQLGSATEVVGPGAGAG--GGPPPP--PPSGTPDAGLWSPSPGRRRRRTAFASRHGKRHKSSRLRCSKKPLHVNFKELGWDDWIIAPLEYEAYHCEG	400
bbu.GDF6	REQLGSATEVVGPGAGAG--GGPPPP--PPSGTPDAGLWSPSPGRRRRRTAFASRHGKRHKSSRLRCSKKPLHVNFKELGWDDWIIAPLEYEAYHCEG	396
bta.GDF6	VCDFFLRSHLEPTNHAIQTLMNSMDPGSTPPSCCVPTKLTPIISILYIDAGNNVVYKQYEMMVVESCGR	470
bbu.GDF6	VCDFFLRSHLEPTNHAIQTLMNSMDPGSTPPSCCVPTKLTPIISILYIDAGNNVVYKQYEMMVVESCGR	466

Figure S7. Comparative amino acid analysis of buffalo and cattle *GDF6* gene

Figure S8. Comparative amino acid analysis of buffalo and cattle *BMP6* gene

Figure S9. Comparative amino acid analysis of buffalo and cattle *TGFB1* gene

Figure S10. Comparative amino acid analysis of buffalo and cattle *GDF11* gene

Figure S11. Comparative amino acid analysis of buffalo and cattle *BMP2* gene

Figure S12. Comparative amino acid analysis of buffalo and cattle *BMP4* gene

Figure S13. Comparative amino acid analysis of buffalo and cattle *BMP10* gene

bta.INHBB	MDGLPGRALGAACLLMLAVG	LGPGVWGSPPTPPPLPAAPQPPPPPGAGGSGDCTCTSCGGFRPEELGRVDGDFLEAVKRHILNRLQMRGRPNITHAVP	100
bbu.INHBB	MDGLPGRALGAACLLMLAVG	LGPGVWGSPPTPPPLPAAPQPPPPPGAGGSGDCTCTSCGGFRPEELGRVDGDFLEAVKRHILNRLQMRGRPNITHAVP	100
bta.INHBB	KAAMVTALRKHLHAGKVREDGRVEIFHLDGHASPGADGQERVSEIISFAETDGLASSRVRLYFFISNEGNQNLFFVQASLWLKLLPYVLEKGGRRKRV	200	
bbu.INHBB	KAAMVTALRKHLHAGKVREDGRVEIFHLDGHASPGADGQERVSEIISFAETDGLASSRVRLYFFISNEGNQNLFFVQASLWLKLLPYVLEKGGRRKRV	200	
bta.INHBB	KVYFQEQGPGDRWAAVEKRVDLKRSQWHTFPLTEPIQALFSRGERRLSLDVQCD	300	
bbu.INHBB	KVYFQEQGPGDRWAAVEKRVDLKRSQWHTFPLTEPIQALFSRGERRLSLDVQCD	300	
bta.INHBB	TNLCCRQOFFIDFRLIGNWDWIIAPTGGYGNCEGSCPAYLAGVFGSASSFHTAVVNQYMRGLNPGTVNSCCIPTKLSTMSMLYFDDEYNIVKRDVPNM	400	
bbu.INHBB	TNLCCRQOFFIDFRLIGNWDWIIAPTGGYGNCEGSCPAYLAGVFGSASSFHTAVVNQYMRGLNPGTVNSCCIPTKLSTMSMLYFDDEYNIVKRDVPNM	400	
bta.INHBB	IVEECGCA		408
bbu.INHBB	IVEECGCA		408

Figure S14. Comparative amino acid analysis of buffalo and cattle *INHBB* gene

bta. BMP5	MHLTIVFLRGIVGLWSCWVLVGS	KGSLGDNHVNHSFIYRRLRNHERREIQREILSILGLPHRPRFSPGKQASSAPLFMLDLYNAMASEENPEELEY	100
bbu. BMP5	MHLTIVFLRGIVGLWSCWVLVGS	KGSLGDNHVNHSFIYRRLRNHERREIQREILSILGLPHRPRFSPGKQASSAPLFMLDLYNAMASEENPEELEY	100
bta. BMP5	VRAPLAADSRGARKGSPASPNFYPRRIQLSRASPLTTQSPPLASLHDANFLNDADMVMSFVNIVERDKDFSQRRHYKEFRDITQIQGEAVTAAEFRI	200	
bbu. BMP5	VRAPLAADSRGARKGSPASPNFYPRRIQLSRASPLTTQSPPLASLHDANFLNDADMVMSFVNIVERDKDFSQRRHYKEFRDITQIQGEAVTAAEFRI	200	
bta. BMP5	YKDRSNGRFENETIKISYQIKIKEYANRDADFLDLTRKTQALDVGWLVDITVTSNHWVINPQNNLGLQLCAETGDGHSINVKASAGLVGRHGPQSKQPF	300	
bbu. BMP5	YKDRSNGRFENETIKISYQIKIKEYANRDADFLDLTRKTQALDVGWLVDITVTSNHWVINPQNNLGLQLCAETGDGHSINVKASAGLVGRHGPQSKQPF	300	
bta. BMP5	MVAFFKASEVLLRSVRAANKRNQNRKSGSHQDSSR	SVSGVDYNTSEQKQACKKHELIVSFRDLGWQDWIIAPEGYAAFYCDGECSFPLNAHMNATNHA	400
bbu. BMP5	MVAFFKASEVLLRSVRAANKRNQNRKSGSHQDSSR	SVSGVDYNTSEQKQACKKHELIVSFRDLGWQDWIIAPEGYAAFYCDGECSFPLNAHMNATNHA	400
bta. BMP5	IVQTLVHLMFDPHVKPKCCAPTKLNAISVLVYFDDSSNVILKKYRNMVVRSCGCH		454
bbu. BMP5	IVQTLVHLMFDPHVKPKCCAPTKLNAISVLVYFDDSSNVILKKYRNMVVRSCGCH		454

Figure S15. Comparative amino acid analysis of buffalo and cattle *BMP5* gene

bta. GDF1	MPFLCRRP	SRVRLLLALLLSSPPACAPAPPGPAAALLQALGLPDVPRGAPESRPVPPVMWRLFRRRDHQEARADPRMPFGATLRPCHVEELGVAGN	100
bbu. GDF1	MPFLCRRP	SRVRLLLALLLSSPPACAPAPPGPAAALLQALGLPDVPRGAPESRPVPPVMWRLFRRRDHQEARADPRMPFGATLRPCHVEELGVAGN	100
bta. GDF1	IVRHVLDRGAAARPPEPASAGQCPEWTVVFDLSAVEPAERPSQARLELRFEEAATAGTTGGWELSVAPAGAGLGPVGLRQVVPTLGGQPVRAELLSIM	200	
bbu. GDF1	IVRHVLDRGAAARPPEPASAGQCPEWTVVFDLSAVEPAERPSQARLELRFEEAATAGTTGGWELSVAPAGAGLGPVGLRQVVPTLGGQPVRAELLSIM	200	
bta. GDF1	ARNASAP	SLRLTLALRHRTPAACARLAELALLVTLDRQLCHPLARPREAE	300
bbu. GDF1	ARNASAP	SLRLTLALRHRTPAACARLAELALLVTLDRQLCHPLARPREAE	300
bta. GDF1	AVLSEPGGTALNHAVALRTLMHAAAPGAAGLPCCVPARLSPTISVLFFDSDNVVLRHYEDMVVDECGCR	369	
bbu. GDF1	AVLSEPGGTALNHAVALRTLMHAAAPGAAGLPCCVPARLSPTISVLFFDSDNVVLRHYEDMVVDECGCR	369	

Figure S16. Comparative amino acid analysis of buffalo and cattle *GDF1* gene

bta. GDF5	MRLPKLLTLLLWHLAWLDLEFICTVLGAPDLGQRPGARPLAKAEAKERPFLAQNI	100
bbu. GDF5	MRLPKLLTLLLWHLAWLDLEFICTVLGAPDLGQRPGARPLAKAEAKERPFLAQNI	100
bta. GDF5	GPEPKGHPPTROGATRTVTPKGOLPGGKAPSKAGSVPSFLLKKAREPGSPREPKEFFRPPPTITPHEYMLSRYRTLSDADRKGNSSVKLEAGLANTI	200
bbu. GDF5	GPEPKGHPPTROGATRTVTPKGOLPGGKAPSKAGSVPSFLLKKAREPGSPREPKEFFRPPPTITPHEYMLSRYRTLSDADRKGNSSVKLEAGLANTI	200
bta. GDF5	TSFIDRGQDDRGF	300
bbu. GDF5	TSFIDRGQDDRGF	300
bta. GDF5	FKNSAQLCLELAWERGRAMDLRGDFDRAARQVHEKALFLVFGRTKKRDLFFNEIKARSGQDDKTVEYLF	400
bbu. GDF5	FKNSAQLCLELAWERGRAMDLRGDFDRAARQVHEKALFLVFGRTKKRDLFFNEIKARSGQDDKTVEYLF	400
bta. GDF5	KALHVNFKDMGWDDWIIAPLEYEAFHCEGLCEFLRSHLEPTNHAVIQTLMNSMDPESTPPTCCVPTLSPISILFIDSANNVVYKQYEDMVVESCGCR	499
bbu. GDF5	KALHVNFKDMGWDDWIIAPLEYEAFHCEGLCEFLRSHLEPTNHAVIQTLMNSMDPESTPPTCCVPTLSPISILFIDSANNVVYKQYEDMVVESCGCR	499

Figure S17. Comparative amino acid analysis of buffalo and cattle *GDF5* gene

bta. GDF15	MFGQRPAPHRSRMLLMMLFMSWLRSGGALSITOEHLQTFQGSNVHSSPDISRFRELKRKYEDLLTRLRANQIWEDSN	100
bbu. GDF15	MFGQRPAPHRSRMLLMMLFMSWLRSGGALSITOEHLQTFQGSNVHSSPDISRFRELKRKYEDLLTRLRANQIWEDSN	100
bta. GDF15	GHLHLRIPRVNLTGELPAASRLHRALLRLSPKAW	200
bbu. GDF15	GHLHLRIPRVNLTGELPAASRLHRALLRLSPKAW	200
bta. GDF15	GCPLGEGRCCHLQSLRASLEDLQWADWVLAPELDVRCIGACPSHFERSANTHAQMQRHLGLNPDAAAPCCVPASYPVVMHQDSGGRVSLTPFDDI	300
bbu. GDF15	GCPLGEGRCCHLQSLRASLEDLQWADWVLAPELDVRCIGACPSHFERSANTHAQMQRHLGLNPDAAAPCCVPASYPVVMHQDSGGRVSLTPFDDI	300
bta. GDF15	VAKDCHCV	308
bbu. GDF15	VAKDCHCV	308

Figure S18. Comparative amino acid analysis of buffalo and cattle *GDF15* gene

bta. MSTN	MQKLQISVYIYLFMLIVAGVPDLNSENSEKENVEKEGLCNACLWRENTTSSRLAIIKIQLSKRLLETAPNISKDAIRQLLPKAPPLLELIDQFDVQRDA	100
bbu. MSTN	MQKLQISVYIYLFMLIVAGVPDLNSENSEKENVEKEGLCNACLWRENTTSSRLAIIKIQLSKRLLETAPNISKDAIRQLLPKAPPLLELIDQFDVQRDA	100
bta. MSTN	SSDGSLEDDDYHART	200
bbu. MSTN	SSDGSLEDDDYHART	200
bta. MSTN	GIWQSIDVKTVLQNLWKQEPESNLGIEIKALDENGHDLAFTFPEPGEDGLTFLEVKVTDTPKRSRDFGLDCDE	300
bbu. MSTN	GIWQSIDVKTVLQNLWKQEPESNLGIEIKALDENGHDLAFTFPEPGEDGLTFLEVKVTDTPKRSRDFGLDCDE	300
bta. MSTN	PKRYKANYSCGECEVFVLQKYPHTHLVQANPRGSAGPCCTPTKMSPINMLYFNAGEGQIIYKGI	375
bbu. MSTN	PKRYKANYSCGECEVFVLQKYPHTHLVQANPRGSAGPCCTPTKMSPINMLYFNAGEGQIIYKGI	375

Figure S19. Comparative amino acid analysis of buffalo and cattle *MSTN* gene

bta.BMP8B	MAARPGFLWLLGLALCALSGGGVFGFRPPLGCPQRRLLGPRRRDLQREILAVLGLPGRPRPRAPFAAALLPASAPLFMLDLYRAVA	100
bbu.BMP8B	MAARPGFLWLLGLALCALSGGGVFGFRPPLGCPQRRLLGPRRRDLQREILAVLGLPGRPRPRAPFAAALLPASAPLFMLDLYRAVA	100
bta.BMP8B	GRADLVMSFVNVMVER	200
bbu.BMP8B	GRADLVMSFVNVMVER	200
bta.BMP8B	TAASDRWLLSRNKDLGLRLYVETDDGRSVDPLAGLLGRQAPRSQKQFVVVTFRRASP	300
bbu.BMP8B	TAASDRWLLSRNKDLGLRLYVETDDGRSVDPLAGLLGRQAPRSQKQFVVVTFRRASP	300
bta.BMP8B	RQVGR	400
bbu.BMP8B	RQVGR	400
bta.BMP8B	ACGCH	405
bbu.BMP8B	ACGCH	405

Figure S20. Comparative amino acid analysis of buffalo and cattle *BMP8B* gene

bta.GDF3	MLFSLAALALCLLFTLAFGQTLQFHEHVFLRFLGLDKVPSPKKQFQVPSILKRIFQAQE	100
bbu.GDF3	MLFSLAALALCLLFTLAFGQTLQFHEHVFLRFLGLDKVPSPKKQFQVPSILKRIFQAQE	100
bta.GDF3	ASCLQKLLSFNLSAIGDEEQLTMAQLGLDLGPNITYNNGPELELSLSLVQTEPHV	200
bbu.GDF3	ASCLQKLLSFNLSAIGDEEQLTMAQLGLDLGPNITYNNGPELELSLSLVQTEPHV	200
bta.GDF3	LEIVVKGGRAS	300
bbu.GDF3	LEIVVKGGRAS	300
bta.GDF3	LTISLNSNYSYAFMQALMHAVDPEVFQAVCIPTKLSPISMLYQDNDNVILRHYYEDMIVDEC	364
bbu.GDF3	LTISLNSNYSYAFMQALMHAVDPEVFQAVCIPTKLSPISMLYQDNDNVILRHYYEDMIVDEC	364

Figure S21. Comparative amino acid analysis of buffalo and cattle *GDF3* gene

bta.GDF7	MDLSAAALCLWLLSACRPDGLAEEAVLRAAGAPAESPGGGGGSGTTLAAEAGTSAALAAASPGFRGARRATGSGFRNGSVVPHQFMMSLYRSL	100
bbu.GDF7	MDLSAAALCLWLLSACRPDGLAEEAVLRAAGAPAESPGGGGGSGTTLAAEAGTSAALAAASPGFRGARRATGSGFRNGSVVPHQFMMSLYRSL	100
bta.GDF7	TPAGFVA	200
bbu.GDF7	TPAGFVA	200
bta.GDF7	EFLDAARVEFVDADALRRHRREPTSRACFLSTR	300
bbu.GDF7	EFLDAARVEFVDADALRRHRREPTSRACFLSTR	300
bta.GDF7	PDSR	400
bbu.GDF7	PDSR	400
bta.GDF7	LLNSMAPDAAPASCCVPARLSPISILYIDAANNVYKQYEDMVVEACGCR	450
bbu.GDF7	LLNSMAPDAAPASCCVPARLSPISILYIDAANNVYKQYEDMVVEACGCR	450

Figure S22. Comparative amino acid analysis of buffalo and cattle *GDF7* gene

bta.INHBC	MICSLFLAFLVLAAAMVATPRADROCPACGEPALDVESHRELLLNLAKRSLDKHLRSORPTLGRFVSGVALRAAL	100
bbu.INHBC	MICSLFLAFLVLAAAMVATPRADROCPACGEPALDVESHRELLLNLAKRSLDKHLRSORPTLGRFVSGVALRAAL	100
bta.INHBC	FATGLCNTTQTRLDFHFSSSSSAGGLEVOQASLMFFVQLPNTTCPLKVRVLELSPRDTNLTSAOHLLOVDD	200
bbu.INHBC	FATGLCNTTQTRLDFHFSSSSSAGGLEVOQASLMFFVQLPNTTCPLKVRVLELSPRDTNLTSAOHLLOVDD	200
bta.INHBC	PEQVDNSPVVLA	300
bbu.INHBC	PEQVDNSPVVLA	300
bta.INHBC	LLKVNTAAG	352
bbu.INHBC	LLKVNTAAG	352

Figure S23. Comparative amino acid analysis of buffalo and cattle *INHBC* gene

bta.NODAL	MHAQC	100
bbu.NODAL	MHAQC	100
bta.NODAL	PVALPFPNIPLSIEIFHQKRLDKNPPDCLEFRMDLFTVTLNQVTFSSGSMVLEVRPLSKWLKHPGGGLREQ	200
bbu.NODAL	PVALPFPNIPLSIEIFHQKRLDKNPPDCLEFRMDLFTVTLNQVTFSSGSMVLEVRPLSKWLKHPGGGLREQ	200
bta.NODAL	PEQRRLGGSTLLWEAESSWRAQEGQLSRERGTTRHRRYHVQDRSQLCRKVKFQVDENLIGWGSW	300
bbu.NODAL	PEQRRLGGSTLLWEAESSWRAQEGQLSRERGTTRHRRYHVQDRSQLCRKVKFQVDENLIGWGSW	300
bta.NODAL	RYQPHRVATCCAPVKTKRPLSMLYVDNGRVLDDHKKDMIVEECGCL	346
bbu.NODAL	RYQPHRVATCCAPVKTKRPLSMLYVDNGRVLDDHKKDMIVEECGCL	346

Figure S24. Comparative amino acid analysis of buffalo and cattle *NODAL* gene

bta.GDF10	MARGPARTSLGPGSQQLFLLSLLLLLLLRDADGSHTAAARP	100
bbu.GDF10	MARGPARTSLGPGSQQLFLLSLLLLLLLRDADGSHTAAARP	100
bta.GDF10	SFRARLEVNVQKAVYFFNLTSMQDSEMLTATFHIFYSEPQW	200
bbu.GDF10	SFRARLEVNVQKAVYFFNLTSMQDSEMLTATFHIFYSEPQW	200
bta.GDF10	QAKDISLIVKAARRDGELL	300
bbu.GDF10	QAKDISLIVKAARRDGELL	300
bta.GDF10	ELPGLDERPA	400
bbu.GDF10	ELPGLDERPA	400
bta.GDF10	DAYYCSGACEFMPKMNVRPSNHATIQSIVRAVGIVPGIPEPCCVDMKSSLGVLFLDENRRNVVLKVPNMSVETCAGR	478
bbu.GDF10	DAYYCSGACEFMPKMNVRPSNHATIQSIVRAVGIVPGIPEPCCVDMKSSLGVLFLDENRRNVVLKVPNMSVETCAGR	478

Figure S25. Comparative amino acid analysis of buffalo and cattle *GDF10* gene

bta.BMP3	MAGARGLHLWLSCLCVSLAQQGRLRQPFPELRVAVPADRAAGGGPEPLQPLDQVSEHMLRLYDRYSGGRTEEARTPGNSLRGS	SLRPF	LRGENTVR	100	
bbu.BMP3	MAGARGLHLWLSCLCVSLAQQGRLRQPFPELRVAVPADRAAGGGPEPLQPLDQVSEHMLRLYDRYSGGRTEEARTPGNSLRGS	SLRPF	LRGENTVR	100	
bta.BMP3	SFRAGAAGMLNKLHIFNLTSLTKSENILSATLYFYIRELINISLSCPVSQECSSHAAQRKHQIDLSAWILKSSGNQSQLGHLSDVGGKPHRDFVSWI			200	
bbu.BMP3	SFRAGAAGMLNKLHIFNLTSLTKSENILSATLYFYIRELINISLSCPVSQECSSHAAQRKHQIDLSAWILKSSGNQSQLGHLSDVGGKPHRDFVSWI			200	
bta.BMP3	SKDITQLLRKAKENEEFLIGFNITTKGHQLPR	MTSPSEPYILVYANDAAISEPESVSVSLQGHRRNFFTGAVPKLDS	SRAPSI	RRRRKRSTGVLLPL	300
bbu.BMP3	SKDITQLLRKAKENEEFLIGFNITTKGHQLPR	MTSPSEPYILVYANDAAISEPESVSVSLQGHRRNFFTGAVPKLDS	SRAPSI	RRRRKRSTGVLLPL	300
bta.BMP3	QNNELPGAEEYQYKE	WVEERKPKYKTLQTQFPDKSNKKKQKRGKQKQSQTQLQFDEQTLKKARRKQWIEPRNCARRYLVKDFADIGWSEWII	SPKSFDAY	400	
bbu.BMP3	QNNELPGAEEYQYKE	WVEERKPKYKTLQTQFPDKSNKKKQKRGKQKQSQTQLQFDEQTLKKARRKQWIEPRNCARRYLVKDFADIGWSEWII	SPKSFDAY	400	
bta.BMP3	YCSGACQFPMKSLKPSNHATIQSIVRAVGVPVGIPEPCCVPEKMSLSILFFDENKNVVLKVYFNMTVESACR			475	
bbu.BMP3	YCSGACQFPMKSLKPSNHATIQSIVRAVGVPVGIPEPCCVPEKMSLSILFFDENKNVVLKVYFNMTVESACR			475	

Figure S26. Comparative amino acid analysis of buffalo and cattle *BMP3* gene

bta.INHA	MWLQLLLLLLAFQGG	RGCHG	LDRELVLAKVRALFDALGPPFVTGEGGDPGVRL	RRHAVGGFMRRGSEPEDQDVSQAILFPAAGASCDEPDAGEA	100
bbu.INHA	MWLQLLLLLLAFQGG	RGCHG	LDRELVLAKVRALFDALGPPFVTGEGGDPGVRL	RRHAVGGFMRRGSEPEDQDVSQAILFPAAGASCDEPDAGEA	100
bta.INHA	EGLFTYVFQPSGHTSRQVTSQAQLWFHTGLDRQE	AAANSSEPLLGLLVLTSGGPMVPVMSLGQAPPRWAVLHLATSAPFLTHPVLAALLRCFLCSCS			200
bbu.INHA	EGLFTYVFQPSGHTSRQVTSQAQLWFHTGLDRQE	AAANSSEPLLGLLVLTSGGPMVPVMSLGQAPPRWAVLHLATSAPFLTHPVLAALLRCFLCSCS			200
bta.INHA	TRPEATPFLVAHTRAKPPSGGERARRSTPPLFWPWSAALRLQLRPPEEFAAHADCHRAALNISFQELGWDRAWVHPPSFIFYCHGGCGLS	FPQDLPLF			300
bbu.INHA	TRPEATPFLVAHTRAKPPSGGERARRSTPPLFWPWSAALRLQLRPPEEFAAHADCHRAALNISFQELGWDRAWVHPPSFIFYCHGGCGLS	FPQDLPLS			300
bta.INHA	VPGVPPTP	IQPLSLVPGAQPCCAALPGTMRPLHVRTTSDGGYSFKYEMVFNLLTQHCACI			360
bbu.INHA	VPGVPPTP	IQPLSLVPGAQPCCAALPGTMRPLHVRTTSDGGYSFKYEMVFNLLTQHCACI			360

Figure S27. Comparative amino acid analysis of buffalo and cattle *INHA* gene

bta.GDF2	MGR	SALWVALPVI	CLLACSAKGKPLENRGRFSTGADAH	LLGGPGGEGEGVTFDLRMFLENMKVDFLRNILNSGVPSQDRTAEPPQYIMIDLYNRYTTDK	100
bbu.GDF2	MGR	SALWVALPVI	CLLACSAKGKPLENRGRFSTGADAH	LLGGPGGEGEGVTFDLRMFLENMKVDFLRNILNSGVPSQDRTAEPPQYIMIDLYNRYTTDK	100
bta.GDF2	TSTPASNIVRSFSGVEDAVSIATTEDFPFQKHILLFNISIPRHEQITRAELRLYLSCQSHMDSPHELKGNMVIYDVLDAEVDAPAGTKTFLVSQDIRDE				200
bbu.GDF2	TSTPASNIVRSFSGVEDAVSIATTEDFPFQKHILLFNISIPRHEQITRAELRLYLSCQSHMDSPHELKGNMVIYDVLDAEVDAPAGTKTFLVSQDIRDE				200
bta.GDF2	GWETFEVSSAVKRWIRADSTKSNKLEVTIVESHKRGCDKLDISVPPGSKNLPFFVVFSDNDRSNGTKETRELELREMI	GHEQESVLRKLSKNTIVVEAGENK			300
bbu.GDF2	GWETFEVSSAVKRWIRADSTKSNKLEVTIVESHKRGCDKLDISVPPGSKNLPFFVVFSDNDRSNGTKETRELELREMI	GHEQESVLRKLSKNTIVVEAGENK			300
bta.GDF2	EEEDVRS	HTPTESLVRKRKS	GAANNHCQKTSLRVNFEDIGWDSWIIAPKEYDAFECKGGCFFPLADDVTPTKHAIVKTLVHLKPFMKVKGACCVPTKI		400
bbu.GDF2	EEEDVRS	HTPTESLVRKRKS	GAANNHCQKTSLRVNFEDIGWDSWIIAPKEYDAFECKGGCFFPLADDVTPTKHAIVKTLVHLKPFMKVKGACCVPTKI		400
bta.GDF2	SPISILYKDDMGVPTLKYHYEGMSVAECGCR				431
bbu.GDF2	SPISILYKDDMGVPTLKYHYEGMSVAECGCR				431

Figure S28. Comparative amino acid analysis of buffalo and cattle *GDF2* gene

bta.GDF9	MALFN	FFLWFCCFAWLCPFISLDSQPSRGEAOIVARTALESEAETWS	LKHLDGRHRPGLLSPLLFVLYDGHREP	RIQPDDEKALSYMKRLYKAYATKE	100
bbu.GDF9	MALFN	FFLWFCCFAWLCPFISLDSQPSRGEAOIVARTALESEAETWS	LKHLDGRHRPGLLSPLLFVLYDGHREP	RIQPDDEKALSYMKRLYKAYATKE	100
bta.GDF9	GTPKSNRSHLYNTVRLFTPCAQHKQAPGDQAAGTLPSVDLLFNLDRTVTVVEHLKSVLLYTFNNSISFEPFVKICNLVIKEP	FSSKTLPRAPYSFTFN			200
bbu.GDF9	GTPKSNRSHLYNTVRLFTPCAQHKQAPGDQAAGTLPSVDLLFNLDRTVTVVEHLKSVLLYTFNNSISFEPFVKICNLVIKEP	FSSKTLPRAPYSFTFN			200
bta.GDF9	QQFEFRKKYKWIEIDVTAPLEPLVASHKRNTHMSVNETCVKDQLQHPARSDFENMTLL	APSILLYLNDTSAQAQFHRWHSLSHPKRPKPSQ	PDQKRGLSA		300
bbu.GDF9	QQFEFRKKYKWIEIDVTAPLEPLVASHKRNTHMSVNETCVKDQLQHPARSDFENMTLL	APSILLYLNDTSAQAQFHRWHSLSHPKRPKPSQ	PDQKRGLSA		300
bta.GDF9	CPMGEEAAEGVRLSRHRRDQESVSSELKKPLVPASFNLSEYFKQFLFPQNECELNDFRLSFSQLKWDNWIVAPHKYNPRYCKGDCPRAVGHRYGSPVMTM				400
bbu.GDF9	CPMGEEAAEGVRLSRHRRDQESVSSELKKPLVPASFNLSEYFKQFLFPQNECELNDFRLSFSQLKWDNWIVAPHKYNPRYCKGDCPRAVGHRYGSPVMTM				400
bta.GDF9	VNNITHEKLDSSVPRPSCVPKAYSPLSVLAIEPDGSIAYKEYEDMIATKCTCR				453
bbu.GDF9	VNNITHEKLDSSVPRPSCVPKAYSPLSVLAIEPDGSIAYKEYEDMIATKCTCR				453

Figure S29. Comparative amino acid analysis of buffalo and cattle *GDF9* gene

bta.BMP8A	MAARPGFLWLGLALCALSGGGV	PGFRPFLGCFQRRRLGPRERRDLQREILAVLGLP	RPRPRAPFAAALLPASAFPLMFLDLYRAVA	DDDEDGGGAPERRL	100
bbu.BMP8A	MAARPGFLWLGLALCALSGGGV	PGFRPFLGCFQRRRLGPRERRDLQREILAVLGLP	RPRPRAPFAAALLPASAFPLMFLDLYRAVA	DDDEDGGGAPERRL	100
bta.BMP8A	GRADLVMSFVNVR	EPALGHQEPHWKEFHEDLTQIPAGEAVTA	EFRIYKLPSTHFLNQTLLHISMFEVVPQESNRESDLFFDLQTLRSGDEGLVLDV		200
bbu.BMP8A	GRADLVMSFVNVR	EPALGHQEPHWKEFHEDLTQIPAGEAVTA	EFRIYKLPSTHFLNQTLLHISMFEVVPQESNRESDLFFDLQTLRSGDEGLVLDV		200
bta.BMP8A	TAASDRWLLSRNKDGLRLYVETDDGRSVDPLAGLLGRQAFRSKQPFVVTFFRASE	PGPARAPRAVRPLKRRPFKRTNEL	FPNKLPGIFD	VHGSHG	300
bbu.BMP8A	TAASDRWLLSRNKDGLRLYVETDDGRSVDPLAGLLGRQAFRSKQPFVVTFFRASE	PGPARAPRAVRPLKRRPFKRTNEL	FPNKLPGIFD	VHGSHG	300
bta.BMP8A	RQVGR	RRELYVSFDQLGWLWDVIAFPQGSAYYCEGECFFPLDSCNNATNHAILQSLVHLLKPHAVPKACCAPTK	SATSVLYYDSSNNVILRKRHNNVVR		400
bbu.BMP8A	RQVGR	RRELYVSFDQLGWLWDVIAFPQGSAYYCEGECFFPLDSCNNATNHAILQSLVHLLKPHAVPKACCAPTK	SATSVLYYDSSNNVILRKRHNNVVR		400
bta.BMP8A	ACGCH				405
bbu.BMP8A	ACGCH				405

Figure S30. Comparative amino acid analysis of buffalo and cattle *BMP8A* gene

bta.BMP15	MVLLSILRILLWGLVFM	MEHRVQMTQVGQPSIAHLPEAPTLP	LPIQELLEAPGKQ	QRKPRILGHPLRYMLELY	RSADASGHPRENRTIGATMVRLVRF	100
bbu.BMP15	MVLLSILRILLWGLVFM	MEHRVQMTQVGQPSIAHLPEAPTLP	LPIQELLEAPGKQ	QRKPRVLGHPLRYMLELY	RSADASGHPRENRTIGATMVRLVRF	100
bta.BMP15	LASVARPLRGSWHIOTLD	FPRLRPNRVAYQLVRATVVYRHQLHLTHSHLSCHVEPWQKSPTNHFPSSGRGS	SKPSL	PKAWTEMDIMEHVQKLNHNKGR		200
bbu.BMP15	LASVARPLRGSWHIOTLD	FPRLRPNRVAYQLVRATVVYRHQLHLTHSHLSCHVEPWQKSPTNHFPSSGRGS	SKPSL	PKAWTEMDIMEHVQKLNHNKGR		200
bta.BMP15	RVLRIRFVCCQPRGSEVRF	FWHGTSSLDIVFLLLYFNDTQSVQRTKPLPKGLKEFTKDP	SLLRRARQA	SIASEVPGPSREHDGPESN	CSLHPFQV	300
bbu.BMP15	RVLRIRFVCCQPRGSEVRF	FWHGTSSLDIVFLLLYFNDTQSVQRTKPLPKGLKEFTKDP	SLLRRARQA	SIASEVPGPSREHDGPESN	CSLHPFQV	300
bta.BMP15	SFOQLGNDHWIITAPHLYT	PNYCKGVCPRLVHYGLNSPNHAIQNLVNELVDQSVPOQSCVPYKYVPISTILLIEANGSILYKEY	GMIAQSCTCR			394
bbu.BMP15	SFOQLGNDHWIITAPHLYT	PNYCKGVCPRLVHYGLNSPNHAIQNLVNELVDQSVPOQSCVPYKYVPISTILLIEANGSILYKEY	GMIAQSCTCR			394

Figure S31. Comparative amino acid analysis of buffalo and cattle *BMP15* gene

bta.LEFTY2	PLWLCWALVPL	LAGPGAALTE	FLDSLLQQLHISEVPIV	KATVEGLVIPAHVR	QYVALLQRGH	AARSGKRFSQNFREVVGRI	SEASS	LLV	100
bbu.LEFTY2	PLWLCWALVPL	LAGPGAALTE	FLDSLLQQLHISEVPIV	KATVEGLVIPAHVR	QYVALLQRGH	AARSGKRFSQNFREVVGRI	SEASS	LLV	100
bta.LEFTY2	FDMEQRLPPRSELVQAVLR	LFQEPVPRALRRHERLFFPRSDR	ARVTVQWLHV	RDDGSNR	TALIDSRLV	THESGWKALDVTEAVNFWQQLRSRQPLLLQ			200
bbu.LEFTY2	FDMEQRLPPRSELVQAVLR	LFQEPVPRALRRHERLFFPRSDR	ARVTVQWLHV	RDDGSNR	TALIDSRLV	THESGWKALDVTEAVNFWQQLRSRQPLLLQ			200
bta.LEFTY2	VLVQREHLGPLASSAHR	LVRFAPQGPSSG	QGEPOLELHTLDL	RDYGAQGNCDPKAPVT	STRCCCRQEMYIDLOGMKWAEN	NWVLEPPGFLAYECVGTCCQ			300
bbu.LEFTY2	VLVQREHLGPLASSAHR	LVRFAPQGPSSG	QGEPOLELHTLDL	RDYGAQGNCDPKAPVT	STRCCCRQEMYIDLOGMKWAEN	NWVLEPPGFLAYECVGTCCQ			300
bta.LEFTY2	FPESLIFKWPFLGPROCIASE	ATSLPMIVSIQEGGC	LQPVVSLPMMRVQTCSCA	WDG	LVPRKLEF				367
bbu.LEFTY2	FPESLIFKWPFLGPROCIASE	ATSLPMIVSIQEGGC	LQPVVSLPMMRVQTCSCA	SDG	LVPRKLEF				367

Figure S32. Comparative amino acid analysis of buffalo and cattle *LEFTY2* gene

bta.AMH	MPGFSLSLALVLSAMGALLR	PGTPREEV	STSA	PREQATGSGALIFQC	NDWPL	SLWLPGSPLDPLCLVTLHSGSNGSRAPLRVVG	LSSYEQAFLEA	100
bbu.AMH	MPGFSLSLALVLSAMGALLR	PGTPREEV	STSA	PREQATGSGALIFQC	NDWPL	SLWLPGSPLDPLCLVTLHSGSNGSRAPLRVVG	LSSYEQAFLEA	100
bta.AMH	VRRTHWGLSDLTITFVCPAGN	QPVIAHLQRLQAWLGE	PGGRWLVLHLEEV	TWEPTLLRFQEP	PPFGGASPP	ELALLVYPG	GLEVTGTGAGLFGTQS	200
bbu.AMH	VRRTHWGLSDLTITFVCPAGN	QPVIAHLQRLQAWLGE	PGGRWLVLHLEEV	TWEPTLLRFQEP	PPFGGASPP	ELALLVYPG	GLEVTGTGAGLFGTQS	200
bta.AMH	LCLTADSDFLALVVDH	PEGAMRRPGLALT	LRNRGNGALLSTAQLQALLFG	ADSRCTRKT	PALLLLPAR	STAMP	AHGRDLVFPFPQPRASPEPEEAPF	300
bbu.AMH	LCLTADSDFLALVVDH	PEGAMRRPGLALT	LRNRGNGALLSTAQLQALLFG	ADSRCTRKT	PALLLLPAR	STAMP	AHGRDLVFPFPQPRASPEPEEAPF	300
bta.AMH	SADFFLETLTRLVRAT	AGPPARASPPRLALDPC	LAGFPQGVNLS	DPAAERLLDGE	EPLLLLLPPTAATTG	VVPATPGGPKSPLWAAGLARRVAAELQA		400
bbu.AMH	SADFFLETLTRLVRAT	AGPPARASPPRLALDPC	LAGFPQGVNLS	DPAAERLLDGE	EPLLLLLPPTAATTG	VVPATPGGPKSPLWAAGLARRVAAELQA		400
bta.AMH	VAAELRALPGLPPAAPLLAR	LLALCPGNFDPGG	PLRALLLLKALQGLRAEWRGRERSGSARAQ	RSACAAAADG	PCALRELSVDLRAERSVLIPETYQA			500
bbu.AMH	VAAELRALPGLPPAAPLLAR	LLALCPGNFDPGG	PLRALLLLKALQGLRAEWRGRERSGSARAQ	RSACAAAADG	PCALRELSVDLRAERSVLIPETYQA			500
bta.AMH	NNCQACGWPQSDRNP	PRYGNHVLLKMQARGA	T	LARPPCCVPTAYTGKLLISLSEERIS	AHHVPMNVATECGCR			575
bbu.AMH	NNCQACGWPQSDRNP	PRYGNHVLLKMQARGA	T	LARPPCCVPTAYTGKLLISLSEERIS	AHHVPMNVATECGCR			575

Figure S33. Comparative amino acid analysis of buffalo and cattle *AMH* gene