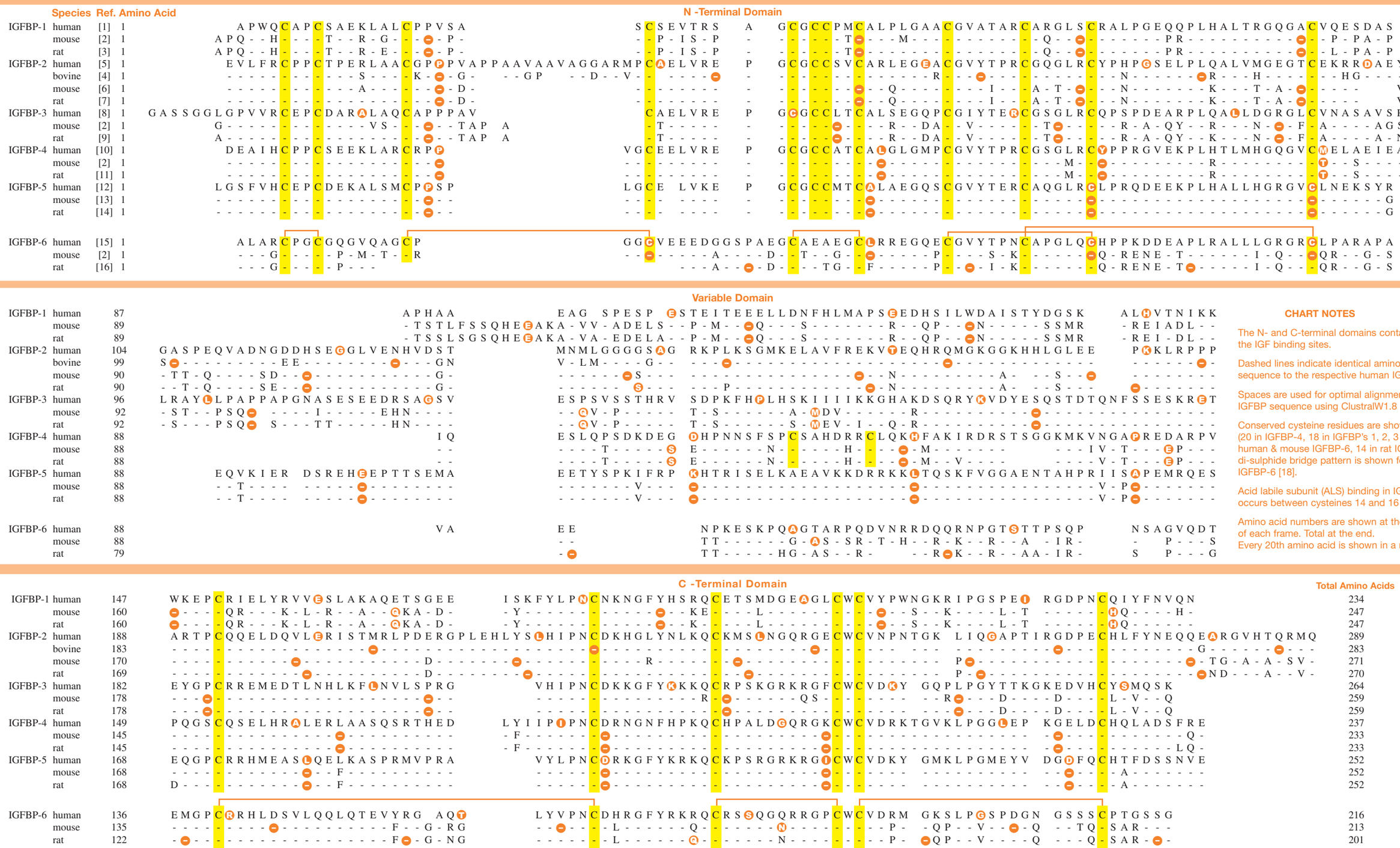
IGFBP Sequence Chart



Dashed lines represent identical sequence compared to respective human counterparts.

CHART NOTES

The N- and C-terminal domains contain the IGF binding sites.

Dashed lines indicate identical amino acid sequence to the respective human IGFBP.

Spaces are used for optimal alignment of the IGFBP sequence using ClustralW1.8 [17].

Conserved cysteine residues are shown in yellow (20 in IGFBP-4, 18 in IGFBP's 1, 2, 3 and 5, 16 in human & mouse IGFBP-6, 14 in rat IGFBP-6). The di-sulphide bridge pattern is shown for human IGFBP-6 [18].

Acid labile subunit (ALS) binding in IGFBPs 3 & 5 occurs between cysteines 14 and 16 [19, 20].

Amino acid numbers are shown at the beginning of each frame. Total at the end.
Every 20th amino acid is shown in a red circle.

REFERENCES

1. Brinkman, A. *et al.* (1988) EMBO J. 7, 2417-2423.
2. Schuller, A.G. *et al.* (1994) Mol. Cell. Endocrinol. 104, 57-66.
3. Murphy, L.J. *et al.* (1990) Mol. Endocrinol. 4, 329-336.
4. Bourner, M.J. *et al.* (1992) J. Cell. Biochem. 48, 215-226.
5. Binkert, C. *et al.* (1989) EMBO J. 8, 2497-2502.
6. Landwehr, J. *et al.* (1993) Gene 124, 281-286.
7. Brown, A.L. *et al.* (1989) J. Biol. Chem. 264, 5148-5154.
8. Wood, W.I. *et al.* (1988) Mol. Endocrinol. 2, 1176-1185.
9. Baxter, R.C. & Martin, J.L. (1987) Biochem. Biophys. Res. Communs. 147, 408-415.
10. LaTour, D. *et al.* (1990) Mol. Endocrinol. 4, 1806-1814.
11. Shimonaka, M. *et al.* (1989) Biochem. Biophys. Res. Communs. 165, 189-195.
12. Kiefer, M.C. *et al.* (1991) Biochem. Biophys. Res. Communs. 176, 219-225.
13. James, P.L. *et al.* (1993) J. Biol. Chem. 268, 22305-22312.
14. Shimasaki, S. *et al.* (1991) J. Biol. Chem. 266, 10646-10653.
15. Martin, J.L. *et al.* (1990) J. Biol. Chem. 265, 4124-4130.
16. Shimasaki, S. *et al.* (1991) Mol. Endocrinol. 5, 938-948.
17. Thompson, J.D. *et al.* (1994) Nucleic Acids Res. 22, 4673-4680.
18. Neumann, G.M. & Bach, L.A. (1999) J. Biol. Chem. 274, 14587-14594.
19. Baxter R.C. *et al.* (1989) J. Biol. Chem. 264, 11843-11848.
20. Twigg, S.M. *et al.* (2000) Endocrinol. 141, 454-457.

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