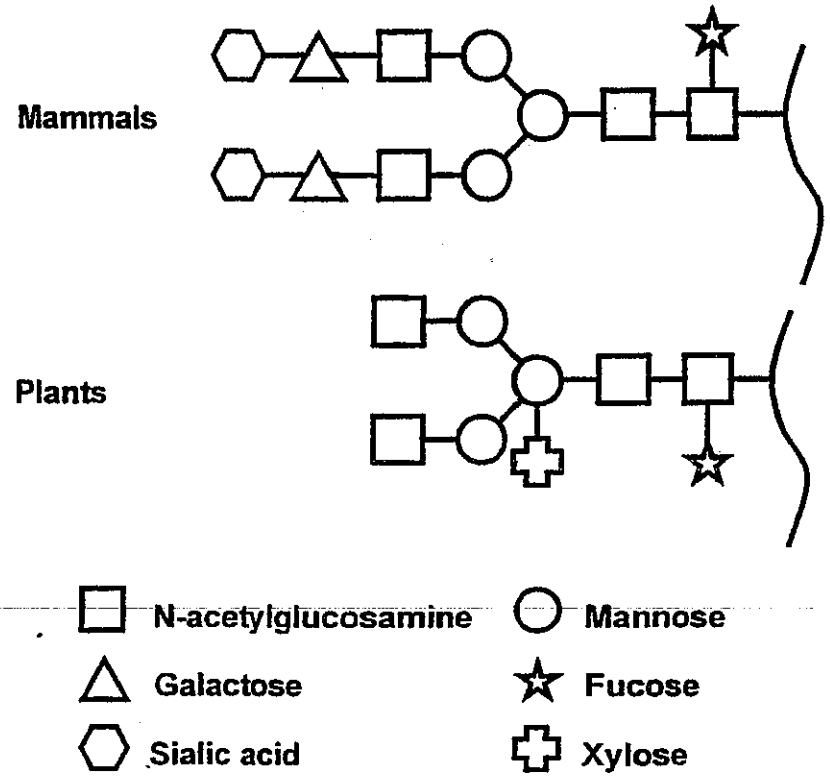

Mammals
Plants
N-acetylglucosamine
Mannose
Galactose
Fucose
Sialic acid
Xylose

Fig. 1

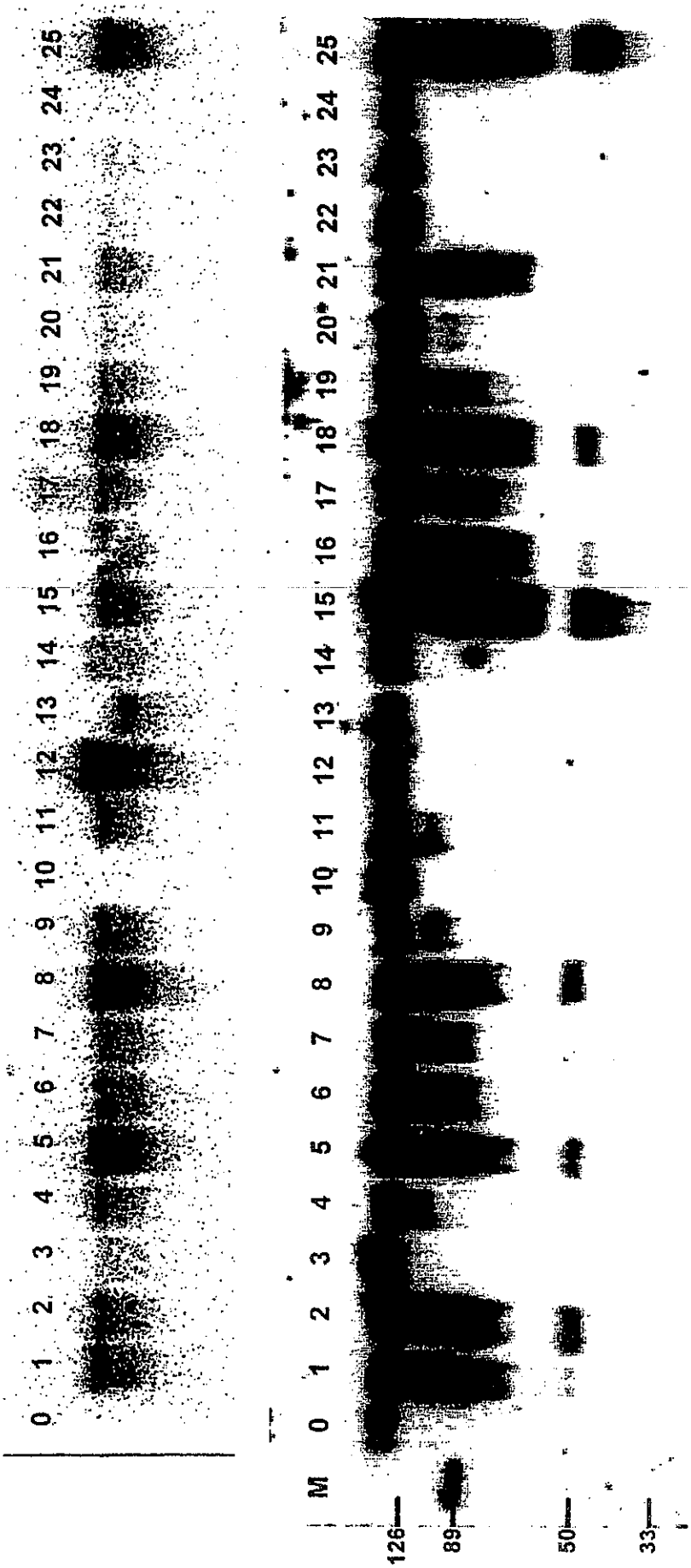


figure 2. Comparison of RNA levels and product of β1,4-galactosyltransferase. Upper panel: Northern blot of total RNA isolated from 25 transgenic plants, including a not transformed control plant (0), detected with a human β1,4-galactosyltransferase probe. Lower panel: Western blot of the same plants probed with RCA to detect terminal galactose residues on glycoproteins. M indicates the molecular weight marker.

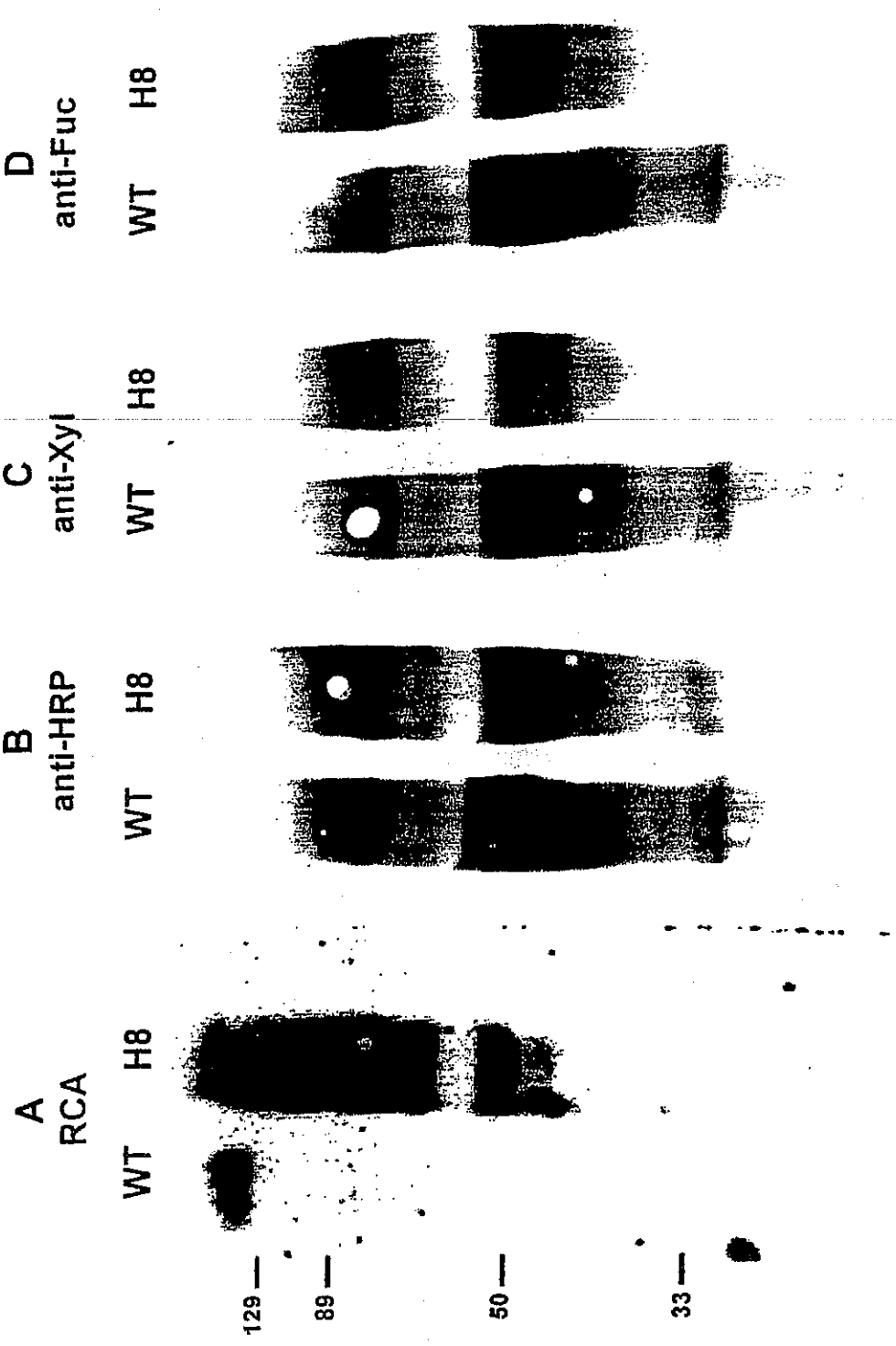


figure 3. Western blot showing the binding of lectin and antibody to protein isolated from wild-type and a β1,4-galactosyltransferase plant (no. 8 from figure 2). A: RCA as in figure 2, B: anti HRP (detecting both xylose and fucose) antibody, C: anti xylose antibody , D: anti fucose antibody.

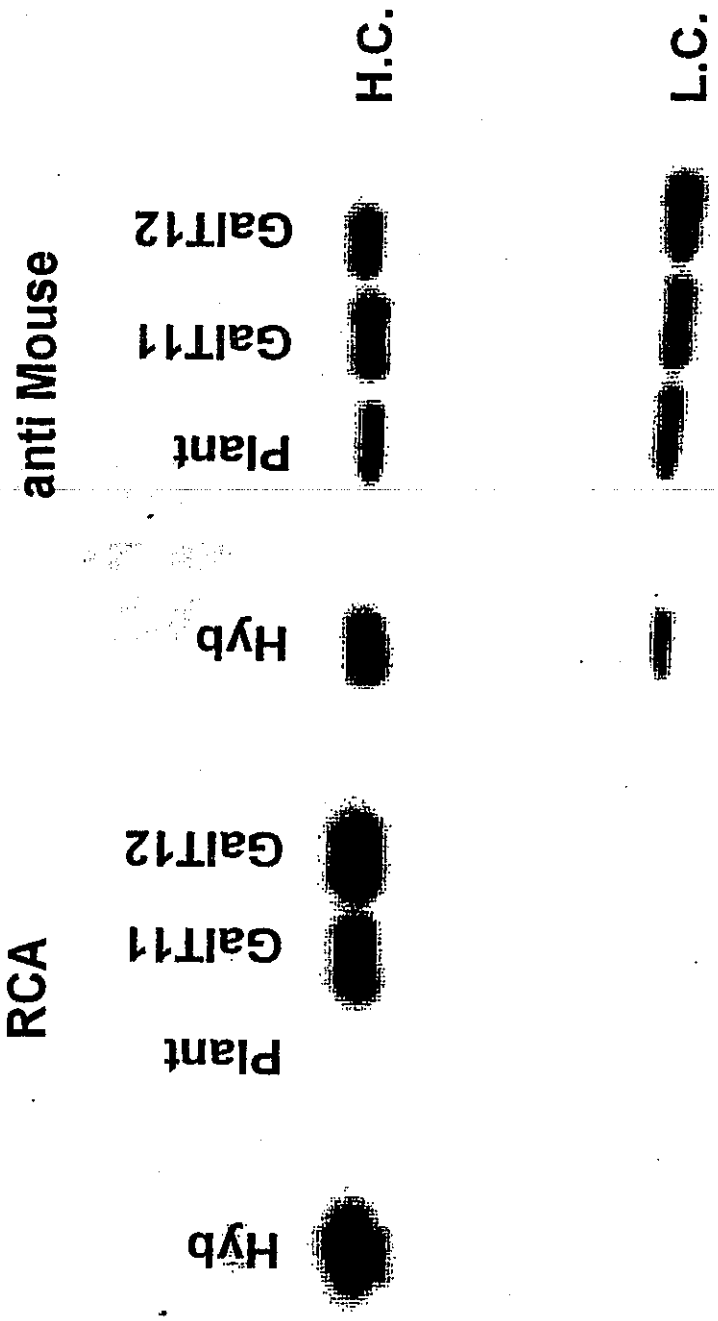


figure 4. Western blot showing RCA and sheep-anti-mouse-IgG binding to purified antibody produced in hybridoma culture (Hyb), tobacco plants (plant) and tobacco plants co-expressing β1,4-galactosyltransferase (galT11 and GalT12). H.C.: heavy chain, L.C. light chain.

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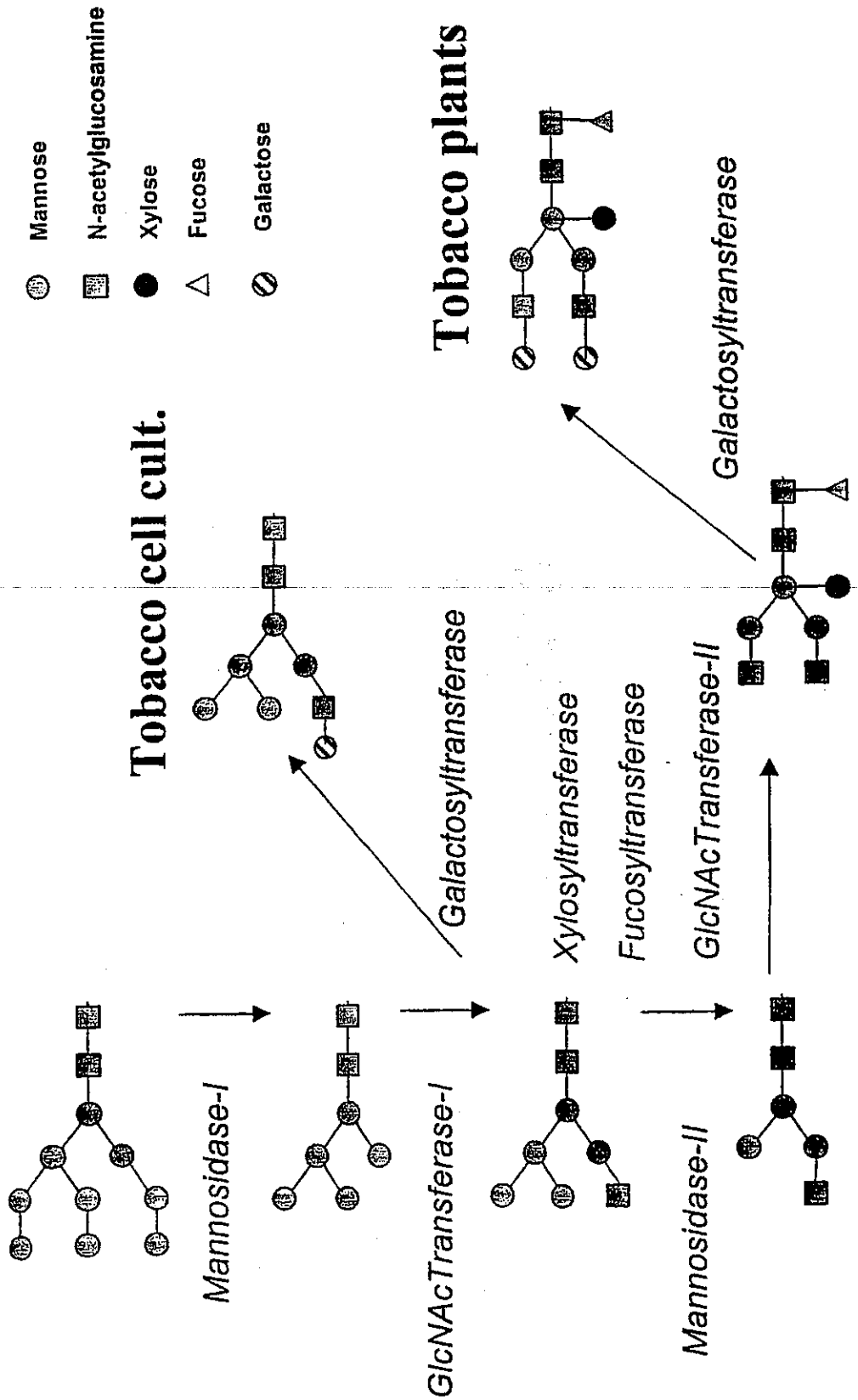


figure 5. Tobacco cell cultures expressing galactosyltransferase produce unnatural hybrid N-glycans while tobacco plants expressing galactosyltransferase have natural, mammalian like galactosylation. To get natural galactosylation, galactosyltransferase should act after mannosidase II and GlcNAcTransferase II.

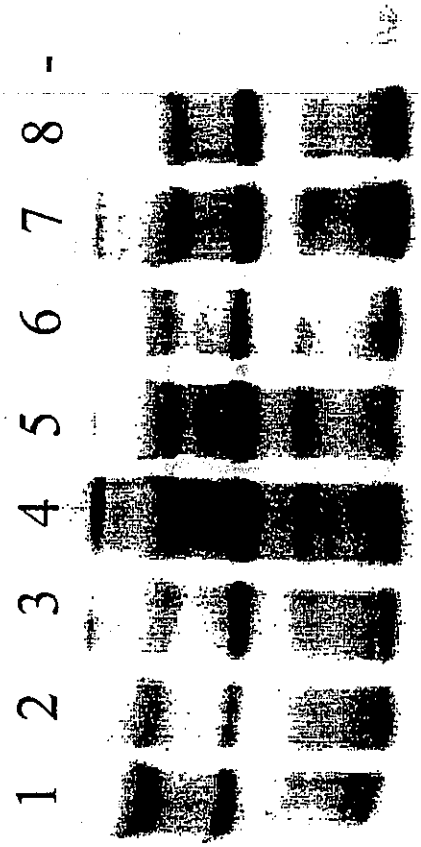


figure 6. Western blot showing the expression of GlcAβ1,3Gal structure in transgenic tobacco by binding of an antibody (412) directed against the glucuronic acid-galactose (GlcAβ1,3Gal) structure to protein isolated from 8 plants expressing human β1,4 galactosyltransferase and rat β1,3 glucuronyltransferase and a wildtype controll plant (-).