

GENE 03331

The human amylase-encoding genes *amy2* and *amy3* are identical to *AMY2A* and *AMY2B*

(Recombinant DNA; pancreatic amylase; lung carcinoid tissue; nucleotide sequence; restriction analysis)

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SUMMARY

Inspection of the published nucleotide sequences reveals that the human amylase-encoding genes, *amy2* and *amy3*, must be identical to the genes *AMY2A* and *AMY2B*, respectively.

Recently, Tomita et al. (1989) described a new human amylase-encoding gene, from lung carcinoid tissue, that was designated *amy3*. We have compared its sequence with the previously published sequence of the human pancreatic amylase-encoding gene, *AMY2B* (Gumucio et al., 1988; Groot et al., 1988), and found them to be identical over the 213 nt that could be compared. The *amy3* gene, previously designated *amyX*, contains a 3.2-kb *EcoRI* fragment (Emi et al., 1988) which is also characteristic of the *AMY2B* gene (Gumucio et al., 1988; Groot et al.,

1989). Thus, the restriction fragment data and the sequence comparison indicate that the *amy3* gene of Tomita et al. (1989) is identical to the *AMY2B* gene. Furthermore, the *amy2* gene of Emi et al. (1988) is identical in sequence and structure with the *AMY2A* gene described by Gumucio et al. (1988) and Groot et al. (1988; 1989).

Because the gene symbols, *AMY2A* and *AMY2B*, are in agreement with the guidelines for human gene nomenclature (Shows et al., 1987), we propose *amy2* and *amy3* to be designated *AMY2A* and *AMY2B*. Consistent use of this nomenclature will prevent further confusion regarding the relationships among human amylase-encoding genes.

Tomita et al. (1989) state that expression of *amy3* was not previously described. However, we have demonstrated that both *AMY2A* and *AMY2B* are expressed at a high level in human pancreas (Samuelson et al., 1988). It is therefore appropriate

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Abbreviations: *amy* or *AMY*, gene encoding amylase; bp, base pair(s); kb, 1000 bp; nt, nucleotide(s).

to use the pancreatic amylase symbol, *AMY2*, for both these genes.

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