

# Effect of isoproterenol analogs on the polypeptide composition of mouse parotid glands: relationship to enhanced growth

Solís, Remigio O.López

Wilson, Dante Miranda

Burgos, Julieta González

The chronic administration of isoproterenol ((±)-1-(3,4)-dihydroxyphenyl)-2-isopropylaminoethanol) induces both the accumulation of a family of secretory polypeptides (polypeptides C, D, E, F and G) and growth in size in mouse parotid glands. Eleven isoproterenol analogs including minor structural modifications either at the aromatic ring, at the ethanol-derived residue or at the end group bonded to the amino of the side chain, were analysed regarding their ability to produce those two responses. Analogs were distributed into two groups, namely inducers and noninducers. Inducer isoproterenol analogs provoked a massive accumulation of polypeptides C, D, E, F and G and were active in producing parotid gland enlargement. Noninducer isoproterenol analogs produced neither changes in the polypeptide composition nor growth response in these glands. Thus, a correlation between accumulation of polypeptides C, D, E, F and G and the growth in size response in parotid glands was more firmly established.