

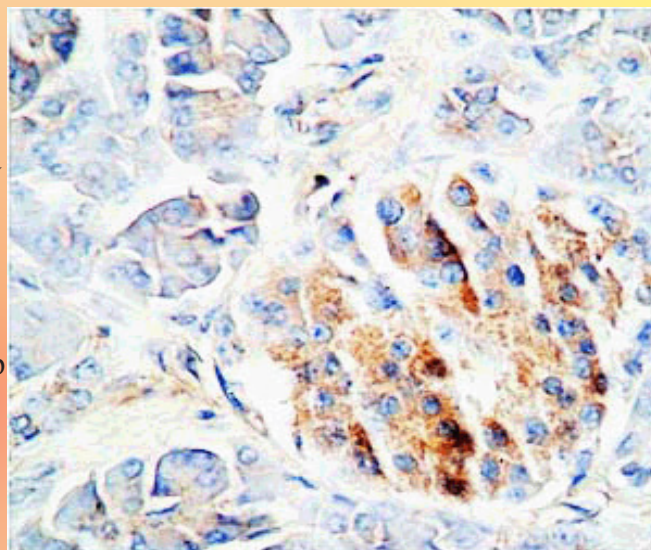
# Adrenomedullin Gly (AM/ADM-Gly)

## A Glycine-extended Adrenomedullin

### Two molecular forms of adrenomedullin in congenital heart disease

To investigate the pathophysiological role of two forms of adrenomedullin (AM), a mature AM (AM-m) and a glycine-extended AM (AM-Gly), in congenital heart disease, we measured plasma levels of AM in patients with cyanotic heart disease, high pulmonary blood flow without pulmonary hypertension (PH), high pulmonary blood flow with PH, Fontan procedure, intracardiac repair without complication, and intracardiac repair with PH and control subjects. Plasma AM-m and AM-Gly were increased only for cyanotic heart disease (2.5 +/- 1.3 pmol/L,  $p < 0.001$ ; 13.1 +/- 6.2 pmol/L,  $p < 0.05$ ) and intracardiac repair with PH (2.3 +/- 1.5 pmol/L,  $p < 0.01$ ; 13.0 +/- 7.0 pmol/L,  $p < 0.05$ ) compared with control (1.0 +/- 1.4 and 8.6 +/- 1.3 pmol/L, respectively).

They were similarly correlated with mean systemic arterial pressure ( $r = -0.40$  and  $-0.37$  respectively;  $p < 0.001$ ), mixed venous oxygen saturation ( $r = -0.60$  and  $-0.50$ ;  $p < 0.0001$ ), systemic arterial oxygen saturation (SA(sat)) ( $r = -0.56$  and  $-0.46$ ;  $p < 0.0001$ ), and pulmonary arterial resistance (Rp) ( $r = 0.41$  and  $0.38$ ;  $p < 0.005$ ). Multiple regression analysis revealed that SA(sat) and Rp were independently correlated with AM. Interestingly, the venous AM-m level was significantly higher than the arterial AM-m, suggesting that the mature form is extracted in pulmonary circulation, whereas there were no venoarterial differences in AM-Gly. These results suggest that plasma AM-m and AM-Gly are similarly regulated and the main clearance site of AM-m is the lung in patients with congenital heart disease.



Human pancreas tissue was stained by Rabbit Anti-Adrenomedullin-Gly (Human) Antibody (cat.No.: H-010-37)

Nishikimi T et al. *Peptides*. 2001 Nov;22(11):1867-72.

Catalog Number	Product Name	Standard Size
010-37	Adrenomedullin-Gly (Human)	100 µg
H-010-37	Adrenomedullin-Gly (Human) - Antibody for Immunohistochemistry	100 ul

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