

## AGR2

A study aims to evaluate whether the serum Anterior Gradient-2 (AGR2) can be used as a potential **biomarker** screening in the diagnosis of **pituitary neuroendocrine tumors**(PAs).

see **pituitary neuroendocrine tumor biomarker**

The serum AGR2 protein levels were preoperatively measured in 163 PA patients, 43 patients with other sellar lesions excluding PAs, 7 patients with prostate cancer as a positive control and 20 normal people(10 female and 10 male) using Enzyme-Linked ImmunoSorbent Assay (ELISA). Differences in the serum AGR2 level between different groups were analyzed for statistical significance with a Mann-Whitney U test.

The data showed that serum AGR2 level was significantly higher in the serum of PA patients ( $250.10 \pm 79.14 \text{ ng/ml}$ ) than the patients with other sellar lesions ( $220.84 \pm 79.62 \text{ ng/ml}$ ,  $P=0.017$ ) and normal people ( $163.67 \pm 50.38 \text{ ng/ml}$ ,  $P < 0.001$ ). Receiver operating characteristic (ROC) curve analysis was used. The detected area under the curve (AUC) was 0.835. The calculated optimal cut-off point for AGR2 level in serum samples was  $158.63 \text{ ng/ml}$  (Youden index=0.564). The sensitivity was 91.4% and the specificity was 65.0%. Despite the variety of PA clinical features, the serum level of AGR2 are definite in PAs, although there may be a difference between male or female patients.

This data suggests AGR2 as a potential biomarker for the diagnosis of PAs <sup>1)</sup>.

<sup>1)</sup>

Tohti M, Li J, Tang C, Wen G, Abdujilil A, Yizim P, Ma C. Serum AGR2 as a useful biomarker for pituitary neuroendocrine tumors. Clin Neurol Neurosurg. 2017 Jan 9;154:19-22. doi: 10.1016/j.clineuro.2017.01.004. [Epub ahead of print] PubMed PMID: 28092730.

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