

## The specific expression of the transgene in vasopressin- and oxytocin-secreting neurons of the hypothalamus in rats (16point)

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Arginine vasopressin (AVP) and oxytocin (OT) are synthesized in the magnocellular neurosecretory cells (MNCs) in the paraventricular (PVN) and supraoptic nuclei (SON) of the hypothalamus. We generated transgenic rats that express AVP-enhanced green fluorescent protein (eGFP) fusion gene in the PVN, the SON and the suprachiasmatic nucleus (SCN) (1). We have also generated another transgenic rats that express OT-enhanced cyan fluorescent protein (eCFP) fusion gene in the PVN and the SON but not the SCN..... (11point, approximately 1,500-2,000 characters)

(9 point) (1) Ueta Y, et al., Transgenic expression of enhanced green fluorescent protein enables direct visualization for physiological studies of vasopressin neurons and isolated nerve terminals of the rat. *Endocrinology* 146: 406-413, 2005