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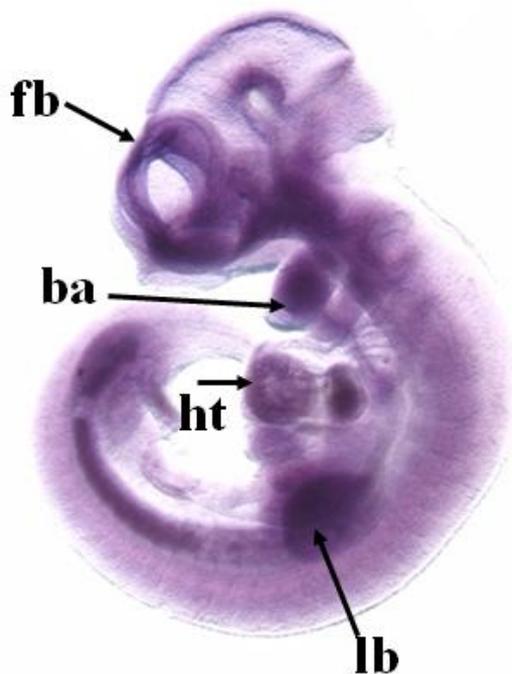
2 ***Supplementary Methodology***

3 ***Whole Mount In Situ Hybridization***

4 Whole mount in situ hybridization of mouse embryos was carried out essentially as  
 5 described by Shen et al. (Supplementary Reference 1). The riboprobes for TCTP  
 6 corresponding to the entire open reading frame of the cDNA were synthesized with a DIG  
 7 RNA labeling kit (Roche, Indianapolis, IN, USA).

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9 **Supplementary Figure S1**

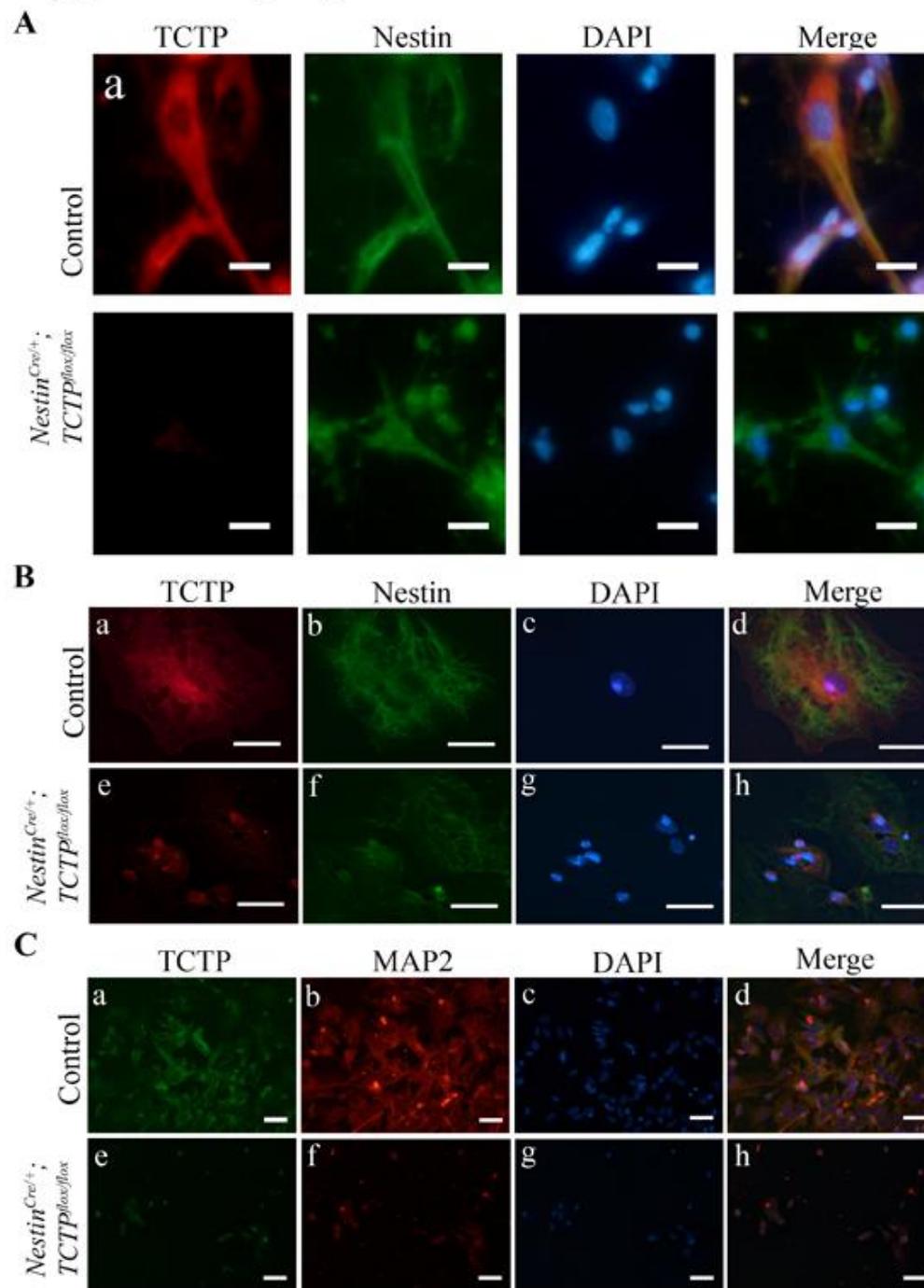


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11 **Supplementary Figure S1.** TCTP RNA expression pattern at mouse embryonic stage 10  
 12 (E10.5). Whole-mount in situ hybridization from wild-type mice at E10.5 was carried out  
 13 using riboprobes specific to *TCTP*. ba, branchial arch; fb, forebrain; ht, heart; lb, limb.

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## Supplemrntary Figure 2



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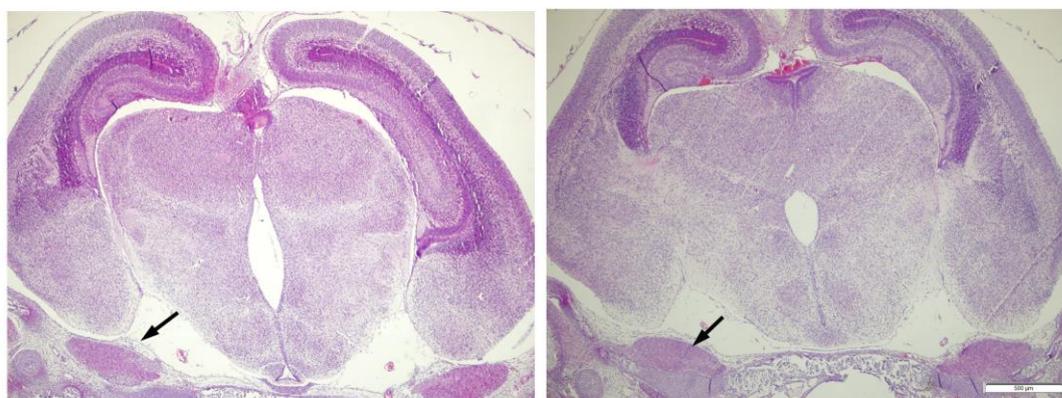
16 **Supplementary Figure S2.** Expression of proliferating neural precursor (Nestin<sup>+</sup>) and  
 17 postmitotic neuron (MAP2<sup>+</sup>) markers was detected during critical period of brain  
 18 development. Double immunofluorescence staining for TCTP (red) and Nestin (green) in  
 19 primary culture from control and TCTP-cKO mice at (A) E16.5 and (B) E14.5. (C) Double  
 20 immunofluorescence staining of MAP2 (red) and TCTP (green) in primary culture from  
 21 control and *Nestin<sup>Cre/+</sup>; TCTP<sup>lox/lox</sup>* mice at E16.5. Scale bars: A, 10 μm; B, C, 20 μm.

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## Supplementary Figure 3



**Control**

**cKO**

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26 **Supplementary Figure S3.** Morphology of brain stem trigeminal ganglion was detected by  
 27 hematoxylin and eosin stain. Coronal brain sections from control and TCTP cKO pups at E16.5  
 28 were stained with hematoxylin and eosin. Scale bars: 500  $\mu$ m. Arrow indicates trigeminal  
 29 ganglion.

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### 31 **Supplementary Table S1**

32 TCTP-deficient mice were not rescued by oral administration of 0.2 mL saline containing 15%  
 33 glucose 2 times per day.

Supplementary Table 1

Genotype	Time (h) Post administration									
	3h	6h	9h	18h	21h	24h	36h	39h	43h	52h
Nestin <sup>cre/+</sup> ; TCTP <sup>f/f</sup>	9	9	8	7	4	4	3	3	3	0
Nestin <sup>cre/+</sup> ; TCTP <sup>f/+</sup>	13	13	13	12	12	12	12	11	11	11
Nestin <sup>+/+</sup> ; TCTP <sup>f/f</sup>	7	7	7	7	7	7	7	7	7	7
Nestin <sup>+/+</sup> ; TCTP <sup>f/+</sup>	8	8	8	8	8	8	8	6	6	6

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### 35 **Supplementary references**

36 1. Shen, M.M.; Wang, H.; Leder, P. A differential display strategy identifies Cryptic, a  
 37 novel EGF-related gene expressed in the axial and lateral mesoderm during mouse  
 38 gastrulation. *Development (Cambridge, England)* **1997**, *124*, 429-442.

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