

Supplementary Information

Cellular sources and regional variations in the expression of the neuroinflammatory marker Translocator Protein 18 kDa (TSPO) in the normal brain

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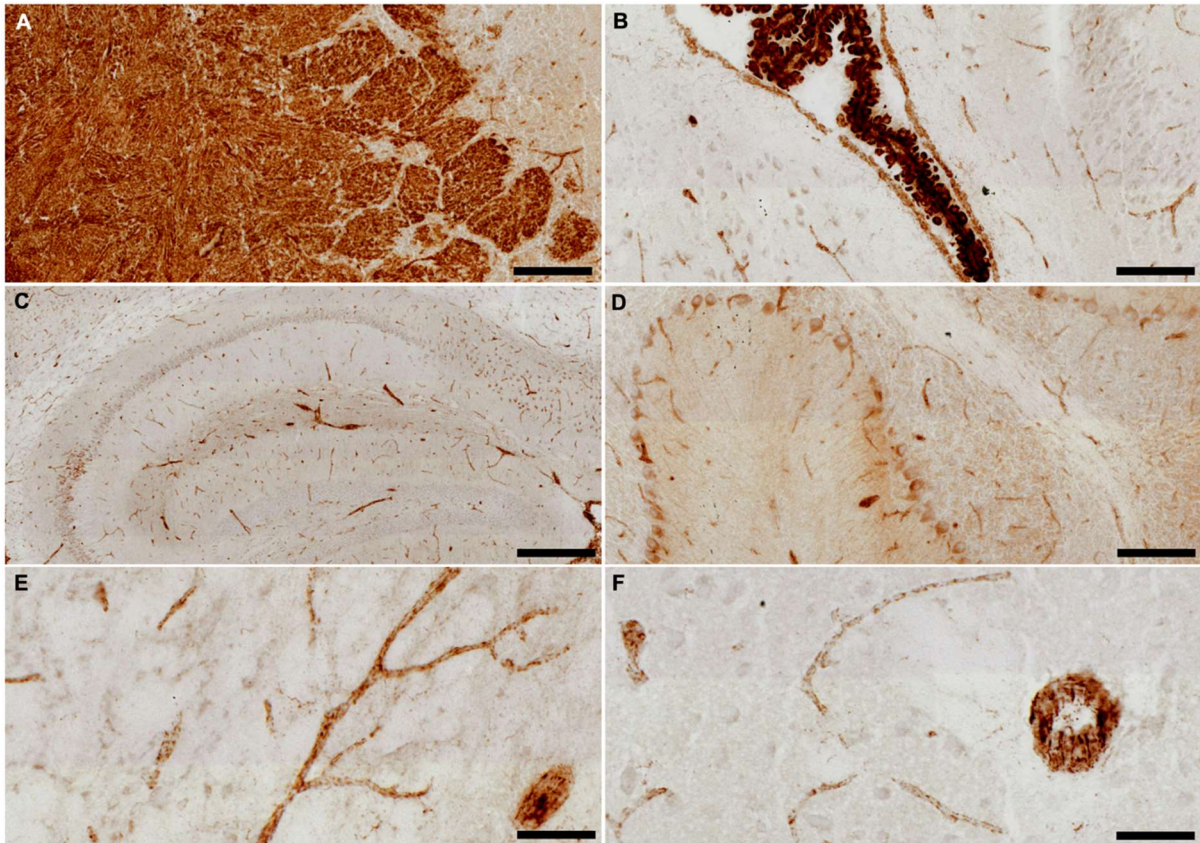
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Supplementary Materials and Methods

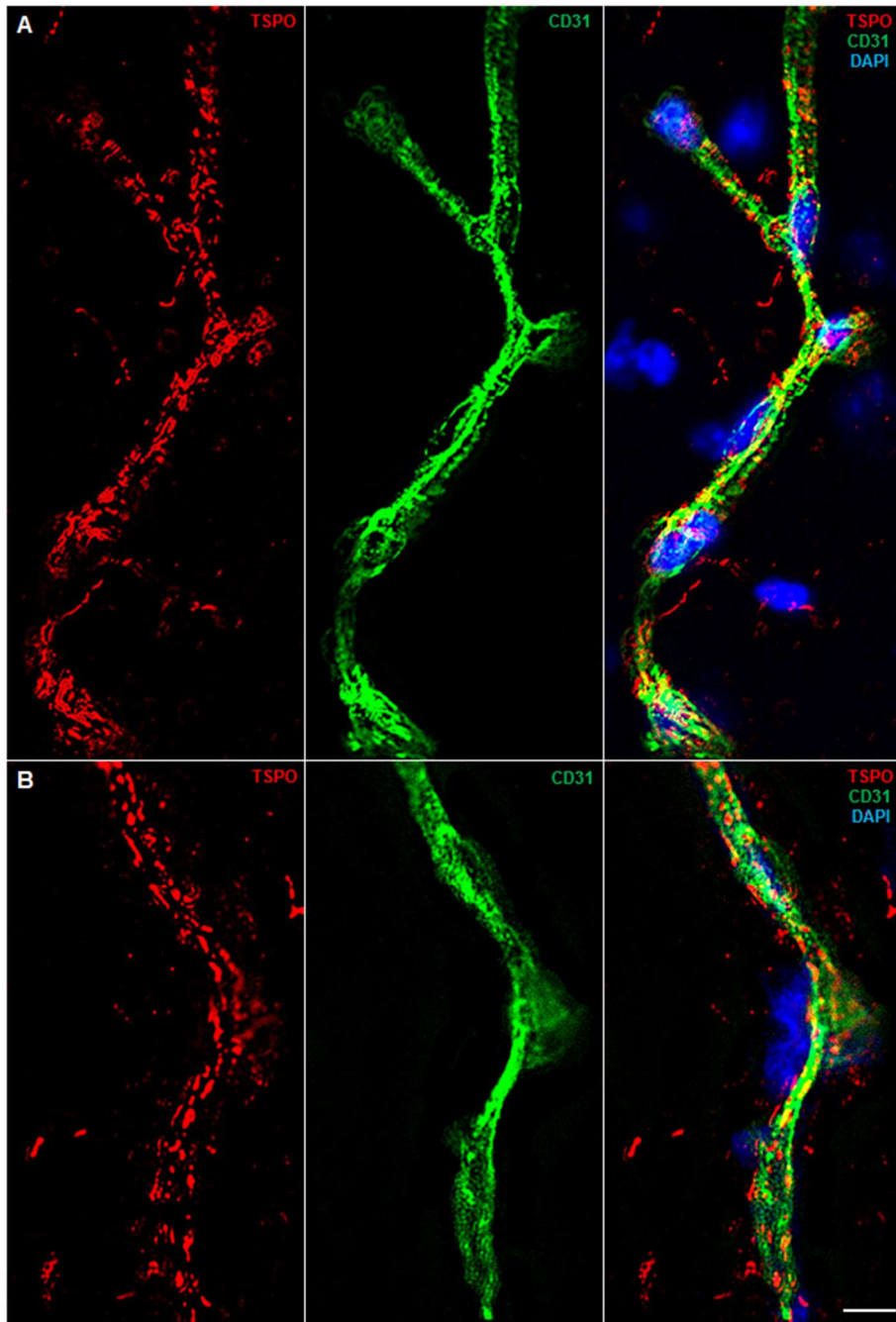
Supplementary Table S1. Primary antibodies used for immunohistochemistry/fluorescence staining in this study. Specificity of the TSPO antibody has been validated in a global TSPO knockout mouse model [1]. Note that GFAP was used to detect mature astrocytes as well as neural stem/progenitors in neurogenic regions.

Target	Description	Dilution	Supplier	ID #
TSPO	Rabbit monoclonal	1:400	Abcam	ab109497
CD11b	Rat monoclonal	1:200	Bio-Rad	MCA711
CD31	Rat monoclonal	1:400	Bio-Rad	MCA2388T
Nestin	Rat monoclonal	1:200	Abcam	ab81462
PDGFR β	Rat monoclonal	1:50	Abcam	ab91066
GFAP	Rat monoclonal	1:200	Thermo Fisher	13-0300
Calbindin	Mouse monoclonal	1:100	Abcam	ab82812
NeuN	Mouse monoclonal	1:100	Merck	MAB377
MBP	Rat monoclonal	1:100	Abcam	ab7349

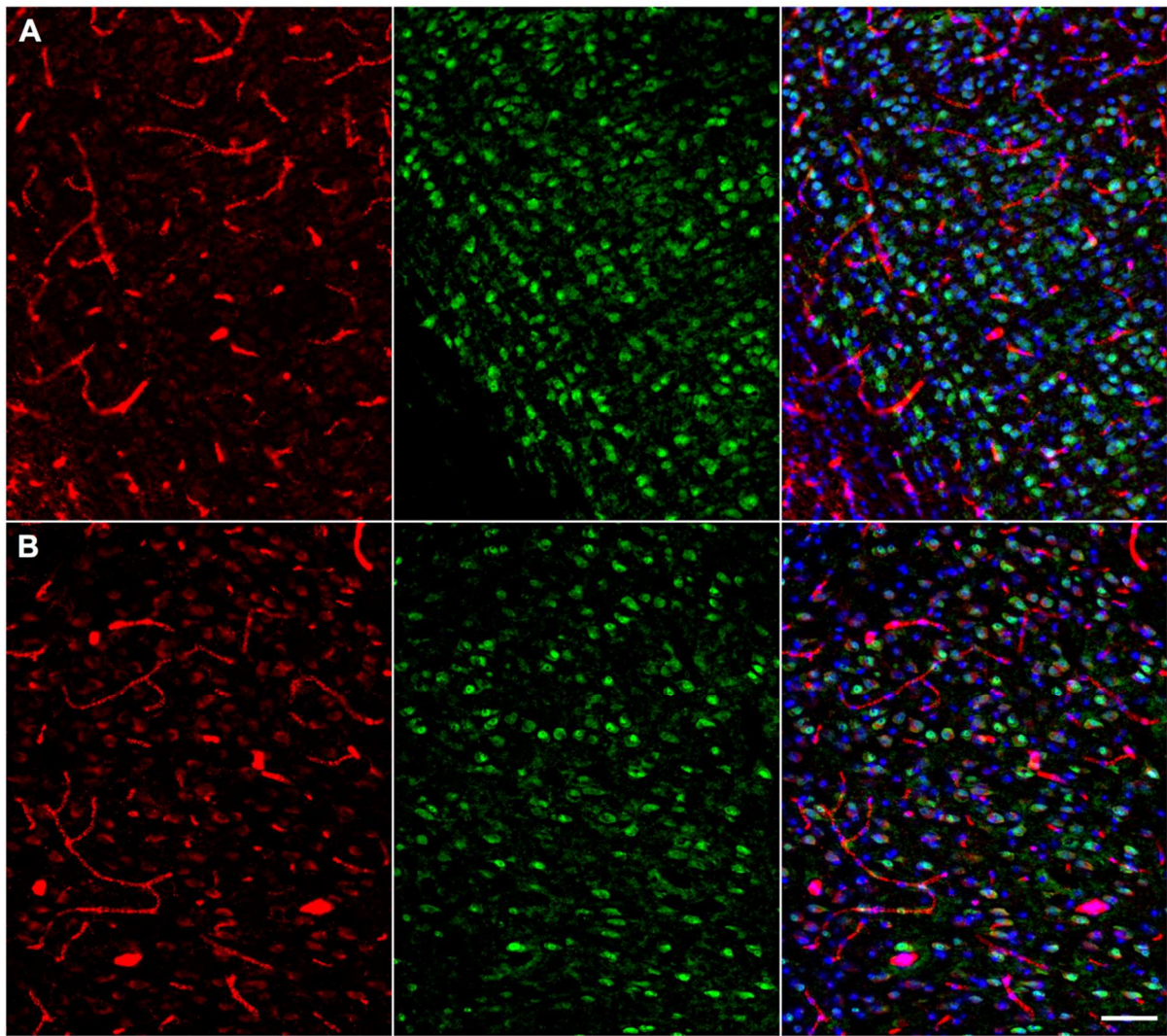
Supplementary Results



Supplementary Figure S1. TSPO distribution visualised with DAB immunohistochemistry using a validated TSPO antibody (#ab109497, Abcam). (A) Nerve trunks in the olfactory bulb; (B) Choroid plexus; (C) Hippocampus; (D) Purkinje neurons in cerebellum; (E) small blood vessels and capillaries; (F) artery and capillaries. Scale bars = 100 μ m for A, B, C and D; scale bars = 40 μ m for E and F.



Supplementary Figure S2. TSPO strongly localises in vascular endothelial cells of the brain. (A, B) CD31+ blood vessels across all brain regions ubiquitously express TSPO. Note the punctate staining pattern of TSPO, indicative of mitochondrial localisation. Scale bar = 20 μ m.



Supplementary Figure S3. Mature neuronal populations do not express TSPO. NeuN+ neurons of the cerebral cortex (**A**) and thalamus (**B**) are not TSPO positive. Scale bar = 20 μ m.

Supplementary References

1. Banati RB, Middleton RJ, Chan R, Hatty CR, Kam WW, Quin C, et al. Positron emission tomography and functional characterization of a complete PBR/TSPO knockout. *Nat Commun.* 2014;5:5452.