Accepted Manuscript

Research report

Serum concentrations of the axonal injury marker neurofilament light protein are not influenced by blood-brain barrier permeability

Marie Kalm, Martina Boström, Åsa Sandelius, Yohanna Eriksson, C. Joakim Ek, Kaj Blennow, Thomas Björk-Eriksson, Henrik Zetterberg

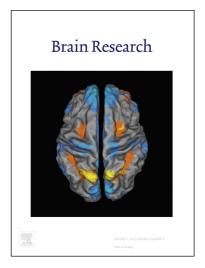
 PII:
 S0006-8993(17)30207-X

 DOI:
 http://dx.doi.org/10.1016/j.brainres.2017.05.011

 Reference:
 BRES 45360

To appear in: Brain Research

Received Date:31 January 2017Revised Date:31 March 2017Accepted Date:10 May 2017



Please cite this article as: M. Kalm, M. Boström, a. Sandelius, Y. Eriksson, C. Joakim Ek, K. Blennow, T. Björk-Eriksson, H. Zetterberg, Serum concentrations of the axonal injury marker neurofilament light protein are not influenced by blood-brain barrier permeability, *Brain Research* (2017), doi: http://dx.doi.org/10.1016/j.brainres. 2017.05.011

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Serum concentrations of the axonal injury marker neurofilament light protein are not influenced by bloodbrain barrier permeability

Authors: Marie Kalm^a*, Martina Boström^b*, Åsa Sandelius^c, Yohanna Eriksson^a, C. Joakim Ek^d, Kaj Blennow^{c,e}, Thomas Björk-Eriksson^b and Henrik Zetterberg^{c,e,f}

*equal contribution

^aDepartment of Pharmacology, Institute of Neuroscience and Physiology, ^bDepartment of Oncology, Institute of Clinical Sciences, ^cDepartment of Psychiatry and Neurochemistry, Institute of Neuroscience and Physiology, ^dDepartment of Physiology, Institute of Neuroscience and Physiology, Sahlgrenska Academy at the University of Gothenburg, Gothenburg, Sweden, ^eClinical Neurochemistry Laboratory, Sahlgrenska University Hospital, Mölndal, Sweden, and the ^fDepartment of Molecular Neuroscience, UCL Institute of Neurology, Queen Square, London, United Kingdom

Corresponding author:

Marie Kalm, PhD, The Sahlgrenska Academy at the University of Gothenburg, Institute of Neuroscience and Physiology, Department of Pharmacology, S-405 30 Gothenburg, Sweden. Tel: (+46) 31-786 3425. E-mail: marie.kalm@neuro.gu.se

Highlights

- There is an acute increase of serum neurofilament light protein (NFL) following both cranial irradiation and anesthesia in mice.
- The levels of serum NFL do not correlate with an acute opening of the blood-brain barrier in a mouse model of cranial irradiation.
- Human data show that the levels of NFL in serum mirror the levels in cerebrospinal fluid independently of the degree of blood-brain barrier integrity.

Download English Version:

https://daneshyari.com/en/article/5736509

Download Persian Version:

https://daneshyari.com/article/5736509

Daneshyari.com