

Datasheet for MS-T004**Mouse Brain****Overview**

Description:	Mouse Brain - MS-T004
Item No.:	MS-T004
Size:	1 Each
Applications:	Other, WB
Origin:	Mouse

Product Details

Background:	Mouse brain tissue can be used as a source of raw materials or prepared as a lysate for use in western blotting, immunohistochemistry, electron microscopy or other uses in cell biology, immunology or biochemistry.
Synonyms:	Isolated mouse brain tissue
Species of Origin:	Mouse

Application Details

Suggested Applications:	Other, WB (Based on references)
--------------------------------	---------------------------------

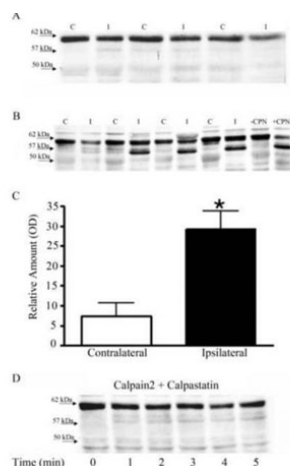
Formulation

Physical State:	Tissue
------------------------	--------

Shipping & Handling

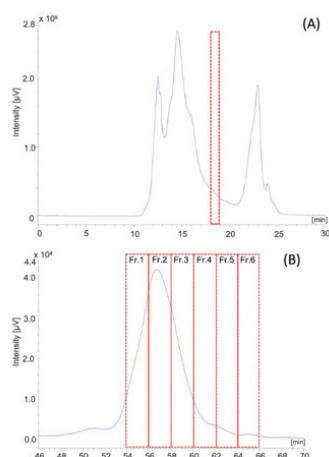
Shipping Condition:	Dry Ice
Storage Condition:	Store tissue at -20° C or colder prior to use.
Expiration:	No expiration date is given for this product if properly stored.

Images



Western Blot

MetAP2 is cleaved by calpain in a rat middle cerebral arterial occlusion (MCAO) stroke model (A) Tissue harvested at 1 hour post-reperfusion did not show a difference in the formation of a proteolytic fragment between contralateral (C) and ipsilateral (I) brain. (B) Western blotting of MCAO brain tissue harvested 24 hours post-ischemia is shown in lanes 1-8. Lanes 9 and 10 show the in vitro digestion of contralateral MCAO brain sample in the presence (+CPN) or absence (-CPN) of calpain 2. A 57 kDa fragment is clearly observed in 3 of 4 samples (I) that runs at an identical molecular weight on SDS-PAGE as calpain-treated brain homogenates (+CPN). (C) A significant increase in the novel 57 kDa calpain-mediated MetAP2 cleavage product was clear at 24 hours post-ischemia (* = p=0.02 by Student's t-test, two-tailed, paired, n=4). (D) Treatment of contralateral MCAO brain samples in the presence of calpain and calpastatin indicates that the 57kDa fragment produced by calpain 2 is blocked by the only known endogenous calpain inhibitor, calpastatin. Homogenate was prepared using commercially available mouse brain (p/n MS-T004). Figure 3. PMID: 23295187.



Figure

Gel-filtration chromatograms of large-scale GFC of the crude peptide extracts (A) and the subsequent triple-analytical GFC (B) from Mouse brain (p/n MS-T004). Fig 4. PMID: 33759292.

References

- Yamagaki, T et al. Amidation/non-amidation top-down analysis of endogenous neuropeptide Y in brain tissue by nano flow liquid chromatography orbitrap Fourier transform mass spectrometry. *Journal of Mass Spectrometry : Jms* (2021)
- Clinkinbeard, T et al. Calpain cleaves methionine aminopeptidase-2 in a rat model of ischemia/reperfusion. *Brain Research* (2013)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.