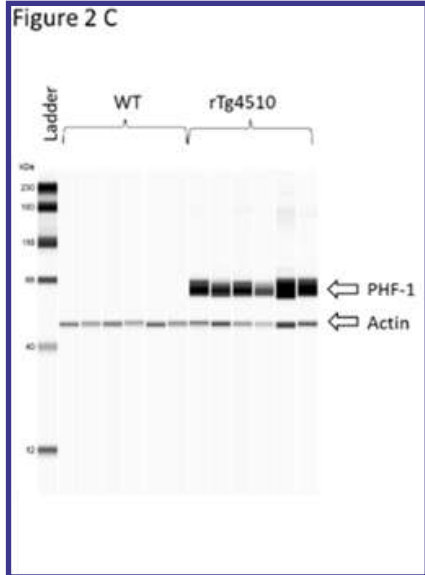


## Altered Brain Metabolome Is Associated with Memory Impairment in the rTg4510 Mouse Model of Tauopathy

Alzheimer's disease (AD) is characterized, amongst other features, by the pathological accumulation of abnormally phosphorylated tau filaments in neurons that lead to neurofibrillary tangles. However, the molecular mechanisms by which the abnormal processing of tau leads to neurodegeneration and cognitive impairment remain unknown. Metabolomic techniques can comprehensively assess disturbances in metabolic pathways that reflect changes downstream from genomic, transcriptomic and proteomic systems. In the present study, we undertook a targeted metabolomic approach to determine a total of 187 pre-nominated metabolites in brain cortex tissue from wild type and rTg4510 animals (a mice model of tauopathy), in order to establish the association of metabolic pathways with cognitive impairment. This targeted metabolomic approach revealed significant differences in metabolite concentrations of transgenic mice. Brain glutamine, serotonin and sphingomyelin C18:0 were found to be predictors of memory impairment. These findings provide informative data for future research on AD, since some of them agree with pathological alterations observed in diseased humans

Metabolites 2020, 10(2), 69;

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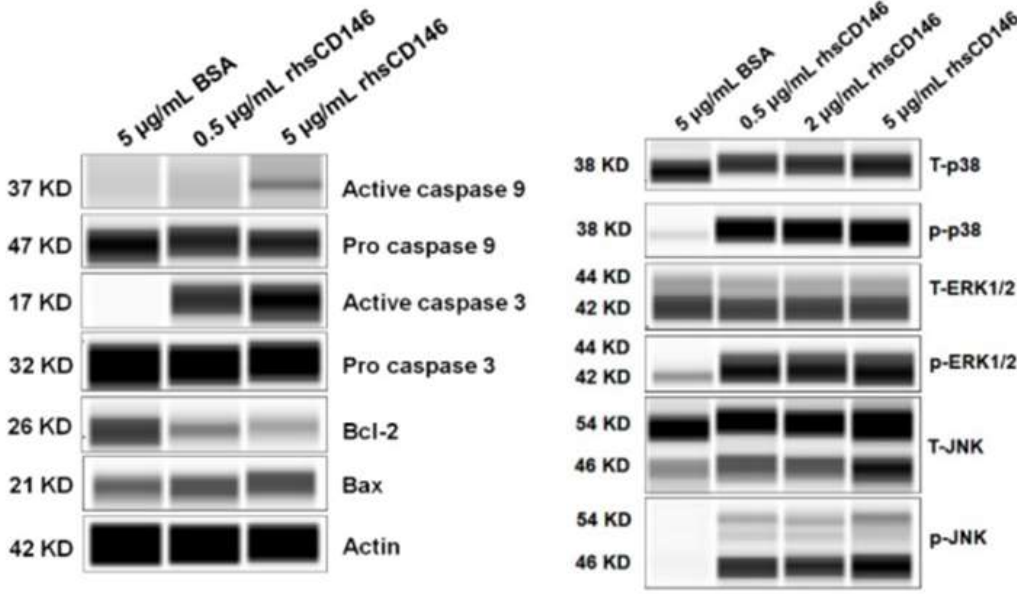


Wes Capillary를 이용하면 하나의 sample에서 여러 개의 target 을 확인할 수 있는 multiplex western blot 실험이 가능합니다

## Soluble CD146, a cerebrospinal fluid marker for neuroinflammation, promotes blood-brain barrier dysfunction

The blood-brain barrier (BBB) dysfunction is an initial event of various neuroinflammatory diseases. However, the absence of reliable markers and mechanisms for BBB damage greatly limits the diagnosis and treatment of neuroinflammatory diseases. Soluble CD146 (sCD146) is mainly derived from vascular endothelial cells (ECs) and highly elevated in inflammatory settings. Based on a small cohort, our previous study showed that sCD146 is elevated in the cerebrospinal fluid (CSF) of multiple sclerosis (MS), which is accompanied with BBB damage. Nevertheless, whether sCD146 monitors and regulates the BBB dysfunction remains unknown. Theranostics, Jan 2020; 10.7150/thno.37142

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Wes는 24개 sample을 동시에 확인할 수 있는 high-throughput 실험이 가능해서 실험 시간을 단축할 수 있습니다.

## 논문에서 사용한 Wes, 웬비메디텍에서 사용해보실 수 있습니다!



- High Sensitivity:** 일반 WB보다 8배 높은 sensitivity
- Less Sample & less Ab:** 0.6ug Sample (최소농도 0.25mg/ml)
- Multiplex Western:** 최대 4개 targets 동시 분석 / sample
- 3hrs Run time:** from loading to result
- Full Automation:** 높은 재현성
- 1,000개 이상 Certified BioTechne (R&D + Novus) Abs
- 웬비 Assay Service 의뢰 가능
- 장비 데모 가능 : 웬비실험실(1일)

### ▶ 웬비 분석서비스 및 데모 가능

