

LAT1

LAT1 is a heterodimeric membrane transport protein that preferentially transports branched-chain (valine, leucine, isoleucine) and aromatic (tryptophan, tyrosine) amino acids.

LAT is highly expressed in brain capillaries (which form the blood-brain barrier) relative to other tissues.

A functional LAT1 transporter is composed of two proteins encoded by two distinct genes:

4F2hc/CD98 heavy subunit protein encoded by the SLC3A2 gene. CD98 light subunit protein encoded by the SLC7A5 gene.

The overexpression of [LAT1](#) transports in [brain metastases](#) make [intracranial metastases](#) a compelling target for [amino acid PET imaging](#) ¹⁾.

¹⁾

Papin-Michault C, Bonnetaud C, Dufour M, et al. Study of LAT1 Expression in Brain Metastases: Towards a Better Understanding of the Results of Positron Emission Tomography Using Amino Acid Tracers. PloS one. 2016; 11(6):e0157139.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

<https://neurosurgerywiki.com/wiki/doku.php?id=lat1>

Last update: **2024/06/07 02:56**

