



Recombinant Monkey CD98 DataSheet

Catalog Number: GR175057

Background

CD98 is a glycoprotein^{[1][2]} that is a heterodimer composed of SLC3A2 and SLC7A5 that forms the large neutral amino acid transporter (LAT1). LAT1 is a heterodimeric membrane transport protein that preferentially transports branched-chain (valine, leucine, isoleucine) and aromatic (tryptophan, tyrosine) amino acids.^[3] LAT is highly expressed in brain capillaries (which form the blood–brain barrier) relative to other tissues.^[3] A functional LAT1 transporter is composed of two proteins encoded by two distinct genes: 4F2hc/CD98 heavy subunit protein encoded by the SLC3A2 gene and CD98 light subunit protein encoded by the SLC7A5 gene. LAT1 showed a novel fundamental role to support the protein expression of 4F2hc via a chaperone-like function in chorionic trophoblasts.^[4] SLC3A2 is upregulated in osteosarcoma and plays a crucial role in tumor growth.^[5] Increased CD98 (4F2hc) expression plays an essential role in tumor aggressiveness and metastasis.^[6]

References

1. Kucharzik T, et al. (2005). *Lab. Invest.* 85 (7): 932–41.
2. Lemaître G, et al. (2005). *Proteomics.* 5 (14): 3637–45.
3. Boado RJ, et al. (1999). *Proc. Natl. Acad. Sci. U.S.A.* 96 (21): 12079–84.
4. Ohgaki R, et al. (2017) *Mol. Cell. Biol.* 37 (11), e00427-16.
5. Zhu B, et al. (2017) *J Oncol. Rep.* 37 (5), 2575-2582.
6. Satoh T, et al. (2017) *J Anticancer Res.* 37 (2), 631-636.



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Description

Quantity: 5 µg

Sources: Expressed in *E. coli*.

Composition:

LKLSVFFPIVFCCLCTIFLVAVPLYSDTVNSLIGIAIALSGLPFYFLIIRVPEHKRPLYLRRIVGSATRYL
QVLCMSVAAEMDLEDGGEMP

Accession #: XP_010376652.1

Molecular weight: 10 kDa

The ED50 for this effect is typically 10 ng/ml.

Endotoxin level: < 1.0 EU per 1 µg of the protein by the LAL method.

Purity: > 96%, by SDS-PAGE under reducing conditions and visualized by silver staining.

Formulation: Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein.

Reconstitution: Reconstitute at 10-100 µg/ml in sterile PBS and store at -20°C ~ -70°C for up to 3 months.

Shipping and storage: The product is shipped at ambient temperature or with ice pad. Upon receipt, store it immediately at -20°C to avoid loss of activity and use it in 6 months.

DECLARATION

THIS REAGENT IS FOR IN VITRO LABORATORY TESTING AND RESEARCH USE ONLY. DO NOT USE IT FOR CLINICAL DIAGNOSTICS. DO NOT USE OR INJECT IT IN HUMANS AND ANIMALS.

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NOT FOR USE IN HUMANS AND ANIMALS**