Data Sheet (Cat.No.TMPY-06857)

TargetMol

L1CAM Protein, Human, Recombinant (hFc)

General Information

Synonyms:	N-CAM-L1;NCAM-L1;N-CAML1;MASA;HSAS;CAML1;CD171;SPG1;L1 cell adhesion molecule; HSAS1;S10;MIC5
Protein Construction:	A DNA sequence encoding the Human L1CAM (NP_000416.1) (Met1-Glu1120) was expressed with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Ile 20
Species:	Human
Expression Host:	HEK293 Cells
Accession:	NP_000416.1
Molecular Weight:	149.93 kDa (predicted); 198.63 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	≥ 90 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

L1 cell adhesion molecule (L1CAM), also designated as CD171, is a cell adhesion receptor of the immunoglobulin superfamily, known for its roles in nerve cell function. While originally believed to be present only in brain cells, in recent years L1-CAM has been detected in other tissues, and a variety of cancer cells, including some common types of human cancer. L1CAM interacts with a variety of ligands including axonin-1, CD9, neurocan, and

integrins, and it has been revealed that the RGD motif in the sixth Ig domain of L1CAM is a binding site for integrins, thus important for nuclear signaling. Disruption of L1CAM function causes three X-linked neurological syndromes, i.e. hydrocephalus, MASA syndrome (mental retardation, aphasia, shuffling gait, and adducted thumbs), and spastic paraplegia syndrome. Overexpression of L1CAM in normal and cancer cells increased motility, enhanced growth rate, and promoted cell transformation and tumorigenicity. Recent work has identified L1CAM (CD171) as a novel marker for human carcinoma progression, and a candidate for anti-cancer therapy.

Reference

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Raveh S,et al.(2009) L1 cell adhesion molecule (L1CAM) in invasive tumors. Cancer Lett. 282(2): 137-45.

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