

Human CD171 / N-CAML1 / L1CAM Protein (His Tag)

Catalog Number: 10140-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CAML1; CD171; HSAS; HSAS1; MASA; MIC5; N-CAM-L1; N-CAML1; NCAM-L1; S10; SPG1

Protein Construction:

A DNA sequence encoding the extracellular domain of human CD171 (NP_000416.1) (Met 1-Glu 1120) was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ile 20

Molecular Mass:

The recombinant human CD171 consists of 1112 amino acids after removal of the signal peptide and predicts a molecular mass of 125 kDa. As a result of glycosylation, the apparent molecular mass of rhCD171 is approximately 160-200 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

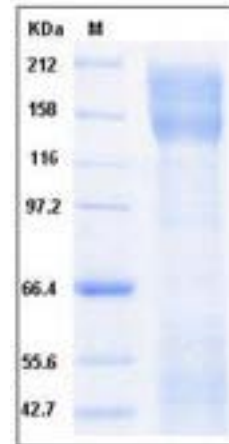
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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 in 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.

References

1. Meier F, *et al.* (2006) The adhesion molecule L1 (CD171) promotes melanoma progression. *Int J Cancer*. 119(3): 549-55.
2. Gavert N, *et al.* (2008) L1-CAM in cancerous tissues. *Expert Opin Biol Ther*. 8(11): 1749-57.
3. Issa Y, *et al.* (2009) Enhanced L1CAM expression on pancreatic tumor endothelium mediates selective tumor cell transmigration. *J Mol Med*. 87(1): 99-112.

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