

## L1CAM Protein, Human (HEK293, C-His)

Cat. No.:	HY-P700417
Synonyms:	L1 cell adhesion molecule; antigen identified by monoclonal R1 , HSAS, HSAS1, MASA, MIC5, S10, SPG1; neural cell adhesion molecule L1; CD171; antigen identified by monoclonal R1; S10; HSAS; MASA; MIC5; SPG1; CAML1; HSAS1; N-CAML1; NCAM-L1; N-CAM-L1;
Species:	Human
Source:	HEK293
Accession:	P32004 (I20-E1120)
Gene ID:	3897
Molecular Weight:	Approximately 150-200 kDa due to the glycosylation

### PROPERTIES

#### AA Sequence

I Q I P E E Y E G H	H V M E P P V I T E	Q S P R R L V V F P	T D D I S L K C E A
S G K P E V Q F R W	T R D G V H F K P K	E E L G V T V Y Q S	P H S G S F T I T G
N N S N F A Q R F Q	G I Y R C F A S N K	L G T A M S H E I R	L M A E G A P K W P
K E T V K P V E V E	E G E S V V L P C N	P P P S A E P L R I	Y W M N S K I L H I
K Q D E R V T M G Q	N G N L Y F A N V L	T S D N H S D Y I C	H A H F P G T R T I
I Q K E P I D L R V	K A T N S M I D R K	P R L L F P T N S S	S H L V A L Q G Q P
L V L E C I A E G F	P T P T I K W L R P	S G P M P A D R V T	Y Q N H N K T L Q L
L K V G E E D D G E	Y R C L A E N S L G	S A R H A Y Y V T V	E A A P Y W L H K P
Q S H L Y G P G E T	A R L D C Q V Q G R	P Q P E V T W R I N	G I P V E E L A K D
Q K Y R I Q R G A L	I L S N V Q P S D T	M V T Q C E A R N R	H G L L L A N A Y I
Y V V Q L P A K I L	T A D N Q T Y M A V	Q G S T A Y L L C K	A F G A P V P S V Q
W L D E D G T T V L	Q D E R F F P Y A N	G T L G I R D L Q A	N D T G R Y F C L A
A N D Q N N V T I M	A N L K V K D A T Q	I T Q G P R S T I E	K K G S R V T F T C
Q A S F D P S L Q P	S I T W R G D G R D	L Q E L G D S D K Y	F I E D G R L V I H
S L D Y S D Q G N Y	S C V A S T E L D V	V E S R A Q L L V V	G S P G P V P R L V
L S D L H L L T Q S	Q V R V S W S P A E	D H N A P I E K Y D	I E F E D K E M A P
E K W Y S L G K V P	G N Q T S T T L K L	S P Y V H Y T F R V	T A I N K Y G P G E
P S P V S E T V V T	P E A A P E K N P V	D V K G E G N E T T	N M V I T W K P L R
W M D W N A P Q V Q	Y R V Q W R P Q G T	R G P W Q E Q I V S	D P F L V V S N T S
T F V P Y E I K V Q	A V N S Q G K G P E	P Q V T I G Y S G E	D Y P Q A I P E L E
G I E I L N S S A V	L V K W R P V D L A	Q V K G H L R G Y N	V T Y W R E G S Q R
K H S K R H I H K D	H V V V P A N T T S	V I L S G L R P Y S	S Y H L E V Q A F N
G R G S G P A S E F	T F S T P E G V P G	H P E A L H L E C Q	S N T S L L L R W Q
P P L S H N G V L T	G Y V L S Y H P L D	E G G K G Q L S F N	L R D P E L R T H N
L T D L S P H L R Y	R F Q L Q A T T K E	G P G E A I V R E G	G T M A L S G I S D
F G N I S A T A G E	N Y S V V S W V P K	E G Q C N F R F H I	L F K A L G E E K G
G A S L S P Q Y V S	Y N Q S S Y T Q W D	L Q P D T D Y E I H	L F K E R M F R H Q
M A V K T N G T G R	V R L P P A G F A T	E	

#### Biological Activity

Measured by the ability of the immobilized protein to support the adhesion of Neuro2A mouse neuroblastoma cells. When

	5x10 <sup>4</sup> cells/well are added to Recombinant Human L1CAM coated plates (25 µg/mL with 100 µL/well), 42.4% will adhere for 1 hour incubation at 37 °C.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

## DESCRIPTION

### Background

L1CAM, a neural cell adhesion molecule, intricately participates in the modulation of cell adhesion dynamics and the initiation of transmembrane signals at tyrosine kinase receptors. Its significance spans various stages of brain development, where it proves critical in processes such as neuronal migration, axonal growth, fasciculation, and synaptogenesis. In the mature brain, L1CAM continues to play a pivotal role in regulating the dynamics of neuronal structure and function, notably contributing to synaptic plasticity. This multifaceted protein interacts with SHTN1, with the interaction prominently occurring in axonal growth cones, and engages with isoform 2 of BSG, underscoring its involvement in diverse cellular functions.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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