

## **Product** Data Sheet

# LAG-3 Protein, Mouse (HEK293, Fc)

Cat. No.: HY-P73843

Synonyms: Lymphocyte activation gene 3 protein; Protein FDC; CD223

Species: Source: HEK293

Accession: Q61790/NP\_032505.1 (S23-L442)

Gene ID: 16768

Molecular Weight: Approximately 82-96 kDa

### **PROPERTIES**

AA Sequence	S G P G K E L P V V W Q H Q P D S G Q P G G L R S G R Q P L Y H A T V R L P N R L N C S F S R P D R P Q V S P L D S G T T V Y A A E G S R V V A G K S G N F T L A V I T V T P K S F S R S C P G P V L E S S S G A H S A R R	WAQEGAPVHL TPIPALDLHQ HPHVQLEERG ALSCSLRLRV PVSVHWFQGQ WGCVLTYRDG ELPCHLPPGV HLEAVGLAQA GLPGSRGKLL IQEARLLAER	P C S L K S P N L D G M P S P R Q P A P L Q R G D F S L W L G Q A S M I A S P S N R V P V Y N S P R F N V S I T Y N L K G T P S L L I A K W G T Y T C S I H L Q C E V T P A S G K E W Q C Q L Y E G Q R	PNFLRRGGVI GRYTVLSVAP RPALRTDAGE GVLKLSDWVL HFLAETFLLL VLGLEPVAPL TPPGGGPELP GQQLNATVTL RFVWRPLNNL LLGATVYAAE
Biological Activity	<ol> <li>Measured by its ability to bind FGL1 Protein, Mouse, Recombinant (His Tag) in functional ELISA.</li> <li>Immobilized Mouse LAG-3, His Tag at 5 μg/mL (100 μL/well) can bind Mouse FGL1. The ED<sub>50</sub> for this effect is 0.1192 μg/mL, corresponding to a specific activity is 8.39×10<sup>3</sup> Unit/mg.</li> </ol>			
Appearance	Lyophilized powder.			
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4 (Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.) or 20 mM PB, 150 mM NaCl, pH 7.4.			
Endotoxin Level	<1 EU/µg, determined by LAL method.			
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O.			
Storage & Stability	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.			
Shipping	Room temperature in continental US; may vary elsewhere.			

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#### **DESCRIPTION**

#### Background

LAG-3 (Lymphocyte activation gene 3) protein is an inhibitory receptor expressed on antigen-activated T-cells, delivering inhibitory signals upon binding to ligands such as FGL1. Serving as a major ligand of LAG3, FGL1 is responsible for LAG3's T-cell inhibitory function. Following T-cell receptor (TCR) engagement, LAG3 associates with CD3-TCR in the immunological synapse, directly inhibiting T-cell activation. LAG3 may synergistically inhibit antigen-specific T-cell activation with PDCD1/PD-1, possibly acting as a coreceptor for PD-1. It negatively regulates the proliferation, activation, effector function, and homeostasis of both CD8(+) and CD4(+) T-cells. Constitutively expressed on a subset of regulatory T-cells (Tregs), LAG3 contributes to their suppressive function, mediating immune tolerance. Additionally, LAG3 acts as a negative regulator of plasmacytoid dendritic cell (pDCs) activation and binds to MHC class II (MHC-II), possibly functioning as a ligand for MHC-II on antigen-presenting cells, thereby promoting APC activation/maturation and driving Th1 immune responses.

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

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