

# Product Data Sheet

## LAG-3 Protein, Cynomolgus (428a.a, HEK293, His)

Cat. No.:	HY-P72530
Synonyms:	Lymphocyte Activating 3; LAG3; LAG-3; CD223
Species:	Cynomolgus
Source:	HEK293
Accession:	XP_005570011.1 (P23-L450(P74))
Gene ID:	102122272
Molecular Weight:	55-65 kDa

#### PROPERTIES

AA Sequence	W Q H Q P D S G P P S V G P G G L R S G D A G E Y R A T V H D W V I L N C S F S E S F L F L P H V G E P A T P L T V Y A G G P D L L V A G D	W A Q E G A P A Q L A P A P G H P P V P R L P L Q P R V Q L L R D R A L S C R L R P D R P A S V H W P M D S G L W G C I G A G S R V E L P C N G D F T L R L E D	P C S P T I P L Q D G H R P A A P Y S W D E R G R Q R G D F R L R V G Q A S M T F R S R G Q G R V P L T Y R D G F N V S R L P P A V G T Q S V S Q A Q A G T Y I	L S L L R R A G V T G P R P R R Y T V L S L W L R P A R R A A S P P G S L R T S V Q G S P H H H L A I M Y N L T V L G L F L T A K W A P P G C H I R L Q G Q Q L		
	N A T V T L A I I T S P L N T P S Q R S A A V Y F T E L S S	V T P K S F G S P G F S G P W L E A Q E P G A Q R S G R A P	S L G K L L C E V T A Q L L S Q P W Q C G A L R A G H L	P A S G Q E H F V W Q L H Q G E R L L G		
Appearance	Lyophilized powder.					
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, 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. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).					
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.					

### DESCRIPTION

Background LAG-3 Protein serves as an inhibitory receptor for antigen-activated T cells and transmits inhibitory signals after binding to

ligands such as FGL1, which is a major contributor to the inhibitory function of LAG3 T cells<sup>[1][2]</sup>. Upon T cell receptor (TCR) engagement, LAG-3 Protein binds to CD3-TCR in the immune synapse and directly blocks T cell activation. LAG-3 Protein may cooperate with PDCD1/PD-1, potentially acting as a coreceptor for PD-1 and inhibiting antigen-specific T cell activation <sup>[3]</sup>. This protein negatively regulates the proliferation, activation, effector function, and homeostasis of CD8(+) and CD4(+) T cells. Furthermore, LAG-3 Protein plays a key role in immune tolerance and is constitutively expressed on a subset of regulatory T cells (Tregs), contributing to their suppressive function<sup>[4]</sup>. LAG-3 Protein acts as a negative regulator of plasmacytoid dendritic cell (pDC) activation and exhibits interaction with MHC class II (MHC-II), although the exact role of MHC-II binding remains unclear. LAG-3 may function as a ligand for MHC class II on antigen-presenting cells (APCs), potentially 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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