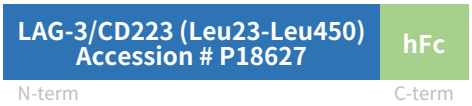
Rev04
Update: Mar,01,2022

DATASHEET

LAG-3 (CD223) Fc Chimera, Human

Cat. No.: Z03422

Product Introduction

Species	Human
Protein Construction	
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	< 1 EU/μg of protein by gel clotting method
Biological Activity	Immobilized FGL-1-His (LC13SE1012) at 2.0 μg/ml (100 μl/well) can bind LAG-3/CD223, hFc, Human with EC_{50} = 0.306 μg/ml when detected by Mouse Anti–Human IgG FC-HRP.
Expression System	HEK 293
Apparent Molecular Weight	~86.0 kDa, on SDS-PAGE under reducing conditions.
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 μg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Examples

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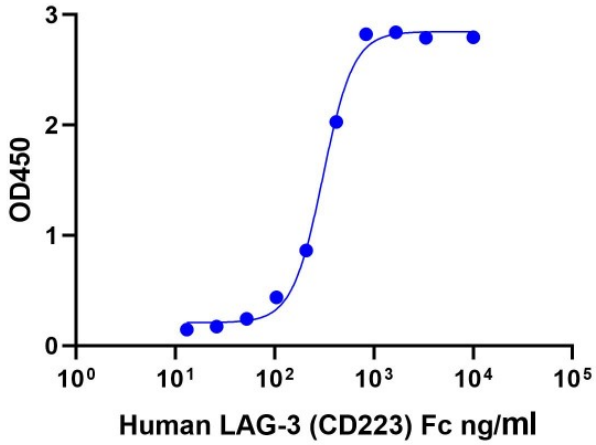

Immobilized FGL-1-His (LC13SE1012) at 2 μg/ml (100 μl/well) can bind Human LAG-3 (CD223) Fc Chimera with EC50=0.306 μg/ml when detected by Mouse Anti–Human IgG FC-HRP. Background was subtracted from data points before curve fitting.

Background

Target Background : Lymphocyte activation gene-3 (LAG-3), also known as CD223, is a cell-surface 70kDa molecule belong to Ig superfamily with diverse biologic effects on T cell function. LAG-3 is a CD4 homolog originally cloned in 1990. The gene for LAG-3 lies adjacent to the gene for CD4 on human chromosome 12 (12p13) and is approximately 20% identical to the CD4 gene. human LAG-3 shares 70%, 67%, 76%, and 73% aa sequence identity with mouse, rat, porcine, and bovine LAG-3, respectively. LAG-3 is expressed on B cells, NK cells, tumor-infiltrating lymphocytes, and a subset of T cells. LAG-3 was relatively overexpressed on transgenic T cells rendered anergic in vivo by encounter with cognate self-antigen. LAG-3 negatively regulates murine T cell activation and homeostasis. LAG-3 activates antigen-presenting cells through MHC class II signaling, leading to increased antigen-specific T-cell responses in vivo. Blocking or knocking out LAG-3 in neuronal cultures or in animals mitigated the transmission of α-synuclein between neurons, and dampened accumulation as well as toxic effects of the fibrils on motor function. Anti-LAG3 antibodies are already being tested as cancer treatments, it could also make a useful therapeutic target to treat Parkinson’ s and other synucleinopathies.

Synonyms : LAG3; CD223; FDC; LAG-3

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.

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