

DESCRIPTION

Source	Human embryonic kidney cell, HEK293-derived human Ly-6G6F protein		
	Human Ly-6G6F (Ala17-Trp235) Accession # Q5SQ64.2	IEGRMD	Human IgG ₁ (Pro100-Lys330)
	N-terminus		C-terminus
N-terminal Sequence	Ala17		
Analysis			
Structure / Form	Disulfide-linked homodimer		
Predicted Molecular Mass	50 kDa		

SPECIFICATIONS

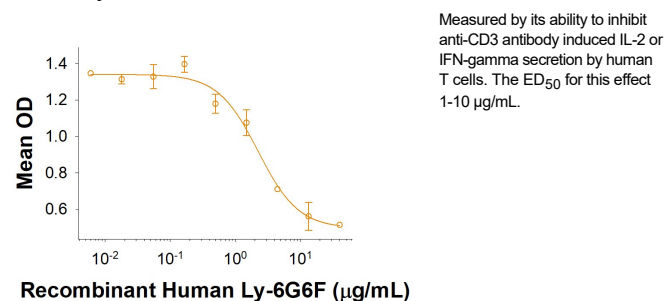
SDS-PAGE	55-62 kDa, under reducing conditions
Activity	Measured by its ability to inhibit anti-CD3 antibody induced IL-2 or IFN-gamma secretion by human T cells. The ED ₅₀ for this effect 1-10 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

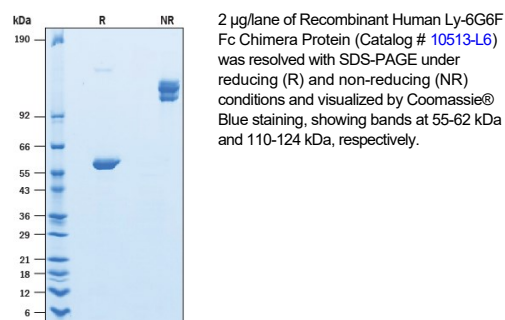
Reconstitution	Reconstitute at 200 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

Bioactivity



SDS-PAGE



BACKGROUND

Lymphocyte antigen 6 complex locus protein G6f, also known as G6f, is a 32-kDa single pass type I membrane protein belonging to the Immunoglobulin Superfamily that is encoded in the MHC (1). The extracellular domain is 281 aa in length and contains one disulfide bond (C35 ↔ C106) and an N-linked glycosylation site at S88. The ECD of human Ly-6G6F shares 64.5% and 63% sequence identity with mouse and rat Ly-6G6F, respectively. The intracellular tail of Ly-6G6F is 40 amino acids in length and contains one tyrosine residue (Y281), which is phosphorylated after treatment of cells with pervanadate. Ly-6G6F may play a role in signal transduction pathways involved with Grb2 and Grb7, such as the Ras-MAP kinase pathway (1). Ly-6G6F tyrosine phosphorylation was also found to take place in response to collagen, although not in response to the G protein-coupled receptor agonists, thrombin and ADP. A global proteomics approach identifies Ly-6G6F as a novel phosphorylated signaling proteins in GPVI-activated platelets (2, 3). Leukocytes mRNA levels of Ly-6G6F mainly involved in inflammation were significantly higher in patients carrying granulin mutations compared with asymptomatic carriers (4).

References:

- De Vet, E.C. *et al.* (2003) *Biochem. J.* **375**:207.
- Garcia, A. *et al.* (2006) *Proteomics.* **6**:5332.
- Lewandowski U. *et al.* (2006) *Mol. Cell Proteomics* **5**:226.
- Milanesi E. *et al.* (2013) *Neurobiol. Aging.* **34**:1837.