

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived cynomolgus monkey Ly6E protein		
	Cynomolgus Monkey Ly6E (Leu21-Ser101) Accession # NP_001270930.1	3x GSL	Human IgG ₁ (Pro100-Lys330)
	N-terminus		C-terminus
N-terminal Sequence Analysis	Leu21		
Predicted Molecular Mass	35 kDa		

SPECIFICATIONS

SDS-PAGE	38-50 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	<1.0 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 with Trehalose. 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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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

<p>Bioactivity</p> <p>Measured by its ability to inhibit anti-CD3 antibody induced IL-2 or IFN-gamma secretion by human T cells. The ED₅₀ for this effect is 1-10 µg/mL.</p>	<p>SDS-PAGE</p> <p>2 µg/lane of Recombinant Cynomolgus Monkey Ly6E Fc Chimera Protein (Catalog # 10530-L6) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 38-50 kDa and 76-100 kDa, respectively.</p>
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BACKGROUND

Lymphocyte antigen 6E (Ly6E), also known as Stem cell antigen 2 (SCA-2) or Thymic shared antigen-1 (TSA-1), is a member of the lymphostromal cell membrane Ly6 protein superfamily (1, 2). There are at least twenty different human Ly6 proteins that have been identified, and they are either secreted or GPI-anchor membrane-bound proteins (3). Cynomolgus Ly6E is synthesized as a precursor molecule that includes a signal peptide, a Ly6E chain, and a propeptide. Within the mature, main chain region, cynomolgus Ly6E shares 94% amino acid sequence identity with human Ly6E. Ly6E is involved in cell signalling transduction, cell adhesion, immune regulation and drug resistance, and is over-expressed in human malignancies, including head and neck squamous cell carcinomas and lung, and oesophageal cancers (4-7). Moreover, Ly6E over-expresses in gastric cancer cells, and is important for cell survival, proliferation and migration, and could be a novel oncogenic protein for efficient diagnosis and treatment of gastric cancer (2). LY6E has recently been shown to promote viral entry of some flaviviruses, including West Nile virus, Dengue virus, and Zika virus (8). Our in-house data indicate that Ly6E inhibits the human T cell activation, including IL-2, IFN-g secretions.

References:

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4. Luo, L. *et al.* (2016) *Oncotarget* **7**:11165.
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6. AlHossiny, M. *et al.* (2016) *Cancer Res.* **76**:3376.
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8. Mar, K.B. *et al.* (2018) *Nat Commun.* **9**:3603.