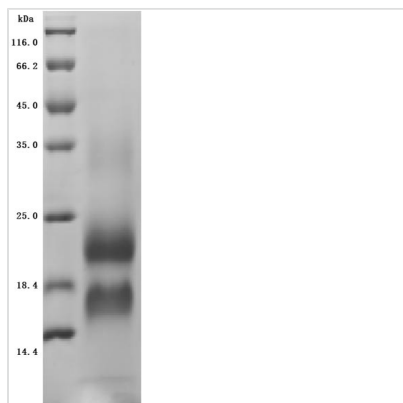


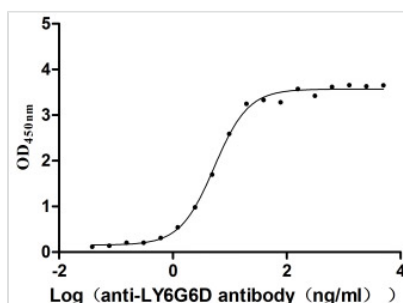


Recombinant Macaca fascicularis lymphocyte antigen 6 family member G6D (LY6G6D) (Active)

Product Code	CSB-YP4607MOV
Abbreviation	Recombinant Cynomolgus monkey LY6G6D protein (Active)
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	UJY53414.1
Form	Lyophilized powder
Storage Buffer	Lyophilized from a 0.2 µm filtered 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0
Product Type	Recombinant Protein
Immunogen Species	Macaca fascicularis (Crab-eating macaque) (Cynomolgus monkey)
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Macaca fascicularis LY6G6D at 2 µg/mL can bind Anti-LY6G6D recombinant antibody (CSB-RA013246MA1HU), the EC50 is 3.963-7.154 ng/mL.
Purity	Greater than 95% as determined by SDS-PAGE.
Sequence	NRMRCYNCGGSPSSSCKEAVTTCGEGRPQPGLEQIKLPGNPPVTLIHQHPAC VAARHCNQVETESVGDVTYPAHRDCYLGDLCS
Source	Yeast
Target Names	LY6G6D
Expression Region	20-104aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	11.1 kDa
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Activity

Measured by its binding ability in a functional ELISA. Immobilized *Macaca fascicularis* LY6G6D at 2 µg/mL can bind Anti-LY6G6D recombinant antibody (CSB-RA013246MA1HU), the EC₅₀ is 3.963-7.154 ng/mL.

Description

This recombinant *Macaca fascicularis* lymphocyte antigen 6 family member G6D (LY6G6D) protein, spanning residues 20-104, is expressed in yeast with an N-terminal 6xHis tag. The protein exhibits high purity (>95% by SDS-PAGE) and low endotoxin content (<1.0 EU/µg, LAL method), ensuring suitability for immunological studies. Functional validation via ELISA demonstrates specific binding to anti-LY6G6D antibody (CSB-RA013246MA1HU) with an EC₅₀ of 3.963–7.154 ng/mL when immobilized at 2 µg/mL, confirming proper folding and antigenicity. The yeast expression system provides cost-effective production while maintaining structural integrity, though post-translational modifications may differ from mammalian systems. Presented as lyophilized powder, this recombinant LY6G6D protein ensures stability and ease of reconstitution. The N-terminal 6xHis tag facilitates purification without interfering with functional epitopes. This recombinant LY6G6D serves as a critical tool for investigating immune regulation, lymphocyte signaling pathways, and potential therapeutic targeting in oncology or infectious disease models, particularly in non-human primate research frameworks.

The LY6G6D protein in *Macaca fascicularis* (*cynomolgus macaque*) is part of the LY6 superfamily, characterized by a conserved LY6 domain that plays significant roles in immune system function. While specific studies on LY6G6D in *Macaca fascicularis* are limited, parallels can be drawn from research on other members of the LY6 superfamily, which suggest essential functions within the immune response.

Studies indicate that proteins of the LY6 family can act as co-stimulatory molecules on lymphocytes, influencing their activation and proliferation [1][2]. In the context of *cynomolgus macaques*, understanding such proteins is crucial for leveraging them as models in biomedical research [3][4].



The versatility of the LY6 protein family is evident from various studies demonstrating their participation in biological processes, including immune regulation and host defense [5]. Proteins from the LY6 family contribute to the innate and adaptive immune responses, suggesting that LY6G6D may likewise influence these responses in *Macaca fascicularis*. Furthermore, evolutionary studies have indicated that *Macaca* species, including *Macaca fascicularis*, exhibit significant genetic similarities and diversities with humans, underscoring their relevance in translational research contexts focused on immune responses [6][7].

Thus, LY6G6D's role can be inferred from its structural characteristics and its membership in the LY6 protein family. Given the evolutionary conservation among these proteins, it is likely that LY6G6D in *Macaca fascicularis* fulfills critical functions related to immune cell signaling and differentiation, essential for adaptive immune capabilities.

References:

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- [7] B. Koo, D. Lee, et al. Reference values of hematological and biochemical parameters in young-adult cynomolgus monkey (*macaca fascicularis*) and rhesus monkey (*macaca mulatta*) anesthetized with ketamine hydrochloride. *Laboratory Animal Research*, vol. 35, no. 1, 2019. <https://doi.org/10.1186/s42826-019-0006-0>

Endotoxin

Less than 1.0 EU/ug as determined by LAL method.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final



concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.