

Product Data Sheet

CD19 Protein, Cynomolgus/Rhesus Macaque (Biotinylated, HEK293, His)

Cat. No.:	HY-P76857
Synonyms:	B-lymphocyte antigen CD19; CD19; B-lymphocyte surface antigen B4
Species:	Rhesus Macaque
Source:	HEK293
Accession:	F7F486 (Q21-K292)
Gene ID:	705211
Molecular Weight:	Approximately 31.4 kDa.

PROPERTIES	
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH_2O.
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	CD19 is a signaling component of the B-cell receptor complex and a regulator that drives B-cell differentiation and germinal center (GC) formation by lowering the threshold for antigen-driven activation. CD19 forms a complex with multiple membrane proteins, including complement receptor type 2 (CD21) and tetraspanin (CD81), thereby lowering the threshold for antigen-primed B cell activation. The CD19 complex then activates the phosphatidylinositol 3-kinase signaling pathway and subsequently releases intracellular stored calcium ions. CD19 is used in chimeric antigen receptor (CAR) T cells to treat lymphocytic leukemia. Anti-CD19 CAR-T cell approaches have been used to treat B-cell malignancies and play a key role in systemic lupus erythematosus (SLE), where B-cell activation is dysregulated. CD19 also has a biological relationship with coronaviruses and may be involved in immune responses or antiviral activities.

Caution: Product has not been fully validated for medical applications. For research use only.

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