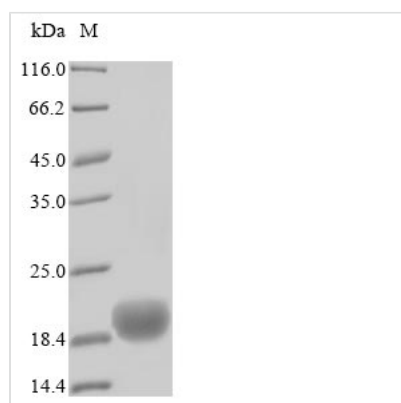




Recombinant Human CAMPATH-1 antigen (CD52)

Product Code	CSB-EP004943HU
Relevance	May play a role in carrying and orienting carbohydrate, as well as having a more specific role.
Abbreviation	Recombinant Human CD52 protein
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.	P31358
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	GQNDTSQTSSPS
Research Area	others
Source	E.coli
Target Names	CD52
Protein Names	CDw52 Cambridge pathology 1 antigen Epididymal secretory protein E5 Human epididymis-specific protein 5
Expression Region	25-36aa
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	5.2 kDa
Protein Length	Full Length of Mature Protein

Image



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

Description



The full-length sequence of the mature human CAMPATH-1 (CD52) antigen (25-36aa) is labeled with the 6xHis tag gene at the N-terminus, obtaining the target gene. The target gene is amplified by PCR. The amplified genes are cloned into expression vectors to construct recombinant plasmids. The recombinant plasmids are transfected into E.coli cells, which are cultured to promote protein expression. Collect the supernatant of the culture medium and purify the supernatant by affinity chromatography to obtain the recombinant human CD52 protein. The purity of the recombinant human CD52 protein exceeds 90% as measured by SDS-PAGE.

Human CD52 is a glycoprotein crucial in the immune system, particularly in the context of lymphocyte biology. It is primarily expressed on the surface of various immune cells, including T cells, B cells, monocytes, and dendritic cells [1][2][3]. CD52 is anchored to the cell membrane via a GPI moiety [3][4]. This glycoprotein is characterized by a short peptide structure comprising 12 amino acids, which is crucial for its biological functions [4][5].

The expression of CD52 is notably high on mature lymphocytes, especially CD4+ T cells, which typically exhibit higher levels than CD8+ T cells [6][7]. CD52 has been shown to modulate T cell activation and proliferation, with soluble forms of CD52 having inhibitory effects on T cells [5][7]. The presence of CD52 on immune cells suggests that it may play a role in cell signaling and interactions during immune responses [5][8]. Furthermore, CD52 is also expressed in certain reproductive tissues, such as epididymal cells and cumulus cells, indicating its potential involvement in reproductive biology [9-11].

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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.