

Synonym

CD55, DAF, CR, CROM, TC

Source

Human CD55, His Tag (CD5-H5225) is expressed from human 293 cells (HEK293). It contains AA Asp 35 - Ser 353 (Accession # NP_000565.1).

Predicted N-terminus: Asp 35

Molecular Characterization

CD55(Asp 35 - Ser 353)
NP_000565.1 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 35.8 kDa. The protein migrates as 50-65 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

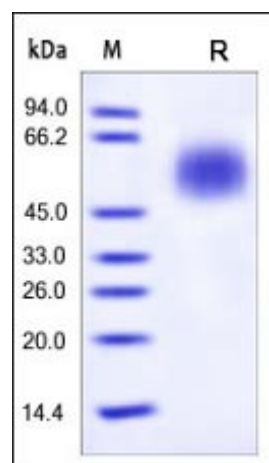
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

Human CD55, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Background

CD55 is also known as DAF or decayaccelerating factor, is a member of the RCA (regulators of complement activation) family characterized by four to 30 SCRs (short consensus repeats) in their plasma-exposed regions. CD55 /DAF is a 70 kDa membrane protein that regulates the complement system on the cell surface. It prevents the assembly of the C3bBb complex (the C3-convertase of the alternative pathway) or accelerates the disassembly of preformed convertase, thus blocking the formation of the membrane attack complex. This glycoprotein is broadly distributed among hematopoietic and non-hematopoietic cells. It is a determinant for the Cromer blood group system. CD55 is known to bind CD97 via the first SCR. It also binds physiologically generated C3 convertases with its second and third SCRs.

Binding results in an accelerated “decay”, or dissociation of active C3 convertases, thus blocking the development of C’ attack complexes on nonforeign cells. Finally, viruses and bacteria are also known to utilize multiple SCR sites for infection.

References

- (1) [Medof ME, et al., 1987, Proc. Natl. Acad. Sci. U.S.A. 84 \(7\): 2007–11.](#)
- (2) [Karnauchow TM, et al., 1996, J. Virol. 70 \(8\): 5143–52.](#)
- (3) [Spiller OB, et al., 2000, J. Infect. Dis. 181 \(1\): 340–3.](#)
- (4) [Williams, P. et al., 2003, J. Biol. Chem., 278\(12\):10691-6.](#)
- (5) [Lea, S., 2002, Biochem. Soc. Trans. 30:1014.](#)

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.