

CD55/DAF Active Protein | CD55 active protein

CD55/DAF Protein, Human, Recombinant (His Tag)

CATALOG # AAA27760	HOST HEK293 Cells
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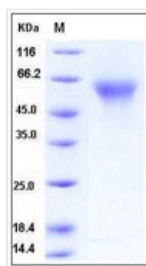
PRODUCT SYNONYMS

CD55/DAF; CD55/DAF Protein; Human; Recombinant (His Tag); Human CD55/DAF Protein (His Tag); CR Protein; CROM Protein; DAF Protein; TC Protein; CD55 molecule; decay accelerating factor for complement (Cromer blood group); CD55 active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	≥ 95% as determined by SDS-PAGE ≥ 90% as determined by SEC-HPLC
Form/Format	Lyophilized from sterile PBS, pH7.4, 5% trehalose , 5% mannitol
Source	Human
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Asp 35
Tag	His-Tag
Protein Construction	A DNA sequence encoding the human CD55 precursor (NP_000565.1)(Met 1-Ser 353) was expressed, with a C-terminal polyhistidine tag.
Reconstitution	It is recommended that sterile water (400ul) be added to the vial to prepare a stock solution of 0.25mg/mL. Concentration is measured by UV.
Bio-Activity	Immobilized Human CD55 His (AAA27760) at 2ug/ml (100uL/well) can bind Human CD97 hFc. The EC ₅₀ of Human CD97 hFc is 15-65ng/mL.
Preparation and Storage	Samples are stable for twelve months from date of receipt at -20°C to -80°C. Store under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycles.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for CD55 active protein	Background: CD55, also well known as decay-accelerating factor (DAF), 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. It is a major regulator of the alternative and classical pathways of complement activation and is expressed on all serum-exposed cells. CD55 is physiologically acting as an inhibitor of the complement system, but is also broadly expressed in malignant tumours. DAF seems to exert different functions beyond its immunological role such as promotion of tumorigenesis, decrease of complement mediated tumor cell lysis, autocrine loops for cell rescue and evasion of apoptosis, neoangiogenesis, invasiveness, cell motility. It is commonly hijacked by invading pathogens, including many enteroviruses and uropathogenic Escherichia coli, to promote cellular attachment prior to infection. This 70-75kDa glycoprotein CD55 containing four SCR modules is involved in the regulation of the complement cascade. It inhibits complement activation by suppressing the function of C3/C5 convertases, thereby limiting local generation or deposition of C3a/C5a and membrane attack complex (MAC or C5b-9) production. DAF has been identified as a ligand for an activation-associated, seven-transmembrane lymphocyte receptor, CD97, which is a receptor mediating attachment and infection of several viruses and bacteria. In addition, it has been shown that DAF regulates the interplay between complement and T cell immunity in vivo, and thus may be implicated in immune and tumor biology.
Product Categories/Family for CD55 active protein	Complement Activation Pathways
References	Lea S. (2002) Interactions of CD55 with non-complement ligands. Biochem Soc Trans. 30(Pt 6): 1014-9. Mikesch JH, et al. (2006) The expression and action of decay-accelerating factor (CD55) in human malignancies and cancer therapy. Cell Oncol. 28(5-6): 223-32. Wang Y, et al. (2010) Decay accelerating factor (CD55) protects neuronal cells from chemical hypoxia-induced injury. J Neuroinflammation. 7:24.

NCBI AND UNIPROT INFORMATION

NCBI GI #	10835143
NCBI GeneID	1604
NCBI Accession #	NP_000565.1
NCBI GenBank Nucleotide #	NM_000574.3
UniProt Accession #	P08174 ; P09679 ; P78361 ; B1AP14 ; D3DT83 ; D3DT84
Molecular Weight	The secreted recombinant human CD55 consists of 330 amino acids and has a predicted molecular mass of 36.5 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhCD55 is approximately 55-60 kDa due to glycosylation.
NCBI Official Full Name	complement decay-accelerating factor isoform 1 preproprotein
NCBI Official Synonym Full Names	CD55 molecule, decay accelerating factor for complement (Cromer blood group)
NCBI Official Symbol	CD55
NCBI Official Synonym Symbols	CR; TC; DAF; CROM
NCBI Protein Information	complement decay-accelerating factor; CD55 antigen
UniProt Protein Name	Complement decay-accelerating factor
UniProt Gene Name	CD55
UniProt Synonym Gene Names	CR; DAF
UniProt Entry Name	DAF_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.