CD26/Dipeptidyl Peptidase 4 Protein, Human (HEK293, His)

Cat. No.:	HY-P70017
Synonyms:	rHuDipeptidyl peptidase 4/CD26, His; Dipeptidyl peptidase 4; ADABP; Adenosine deaminase complexing protein 2; ADCP-2; Dipeptidyl peptidase IV; DPP IV; T-cell activation antigen CD26
Species:	Human
Source:	HEK293
Accession:	P27487 (N29-P766)
Gene ID:	1803
Molecular Weight:	86-130 kDa

PROPERTIES

AA Sequence

N K G T D D A T A D S R K T Y T L T D Y L K N T Y R L K L Y S L R W I S D H E Y
L Y K Q E N N I L V F N A E Y G N S S V F L E N S T F D E F G H S I N D Y S I S
P D G Q F I L L E Y N Y V K Q W R H S Y T A S Y D I Y D L N K R Q L I T E E R I
P N N T Q W V T W S P V G H K L A Y V W N N D I Y V K I E P N L P S Y R I T W T
G K E D I I Y N G I T D W V Y E E E V F S A Y S A L W W S P N G T F L A Y A Q F
N D T E V P L I E Y S F Y S D E S L Q Y P K T V R V P Y P K A G A V N P T V K F
F V V N T D S L S S V T N A T S I Q I T A P A S M L I G D H Y L C D V T W A T Q
E R I S L Q W L R R I Q N Y S V M D I C D Y D E S S G R W N C L V A R Q H I E M
S T T G W V G R F R P S E P H F T L D G N S F Y K I I S N E E G Y R H I C Y F Q
I D K K D C T F I T K G T W E V I G I E A L T S D Y L Y Y I S N E Y K G M P G G
R N L Y K I Q L S D Y T K V T C L S C E L N P E R C Q Y Y S V S F S K E A K Y Y
Q L R C S G P G L P L Y T L H S S V N D K G L R V L E D N S A L D K M L Q N V Q
M P S K K L D F I I L N E T K F W Y Q M I L P P H F D K S K K Y P L L L D V Y A
G P C S Q K A D T V F R L N W A T Y L A S T E N I I V A S F D G R G S G Y Q G D
K I M H A I N R R L G T F E V E D Q I E A A R Q F S K M G F V D N K R I A I W G
W S Y G G Y V T S M V L G S G S G V F K C G I A V A P V S R W E Y Y D S V Y T E
R Y M G L P T P E D N L D H Y R N S T V M S R A E N F K Q V E Y L L I H G T A D
D N V H F Q Q S A Q I S K A L V D V G V D F Q A M W Y T D E D H G I A S S T A H
Q H I Y T H M S H F I K Q C F S L P

Biological Activity	Measured by its ability to cleave the fluorogenic peptide substrate, Gly-Pro-7-amido-4-methylcoumarin (GP-AMC). Read at excitation and emission wavelengths of 380 nm and 460 nm .The specific activity is 39568.285 pmol/min/μg, as measured under the described conditions.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is

	recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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	CD26/Dipeptidyl Peptidase 4 protein, a cell surface glycoprotein receptor, plays a pivotal role in the costimulatory signal essential for T-cell receptor (TCR)-mediated T-cell activation. Functioning as a positive regulator of T-cell coactivation, CD26 interacts with ADA, CAV1, IGF2R, and PTPRC, leading to T-cell proliferation and NF-kappa-B activation in a T-cell receptor/CD3-dependent manner. Its binding to CAV1 and CARD11 induces T-cell proliferation, while its interaction with ADA regulates lymphocyte-epithelial cell adhesion. In association with FAP, CD26 is involved in pericellular proteolysis of the extracellular matrix, contributing to the migration and invasion of endothelial cells. Additionally, it may play a role in promoting lymphatic endothelial cell adhesion, migration, and tube formation. Acting as a serine exopeptidase with dipeptidyl peptidase activity, CD26 regulates various physiological processes by cleaving peptides in the circulation, including chemokines, mitogenic growth factors, neuropeptides, and peptide hormones. Notably, CD26 acts as a receptor for the human coronavirus MERS-CoV-2 during microbial infection.

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