

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

<b>Cat. No.:</b>	HY-P72975
<b>Synonyms:</b>	Dipeptidyl peptidase 4; ADABP; ADCP-2; DPP IV; TP103; CD26; DPP4
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	P27487 (N29-P766)
<b>Gene ID:</b>	1803
<b>Molecular Weight:</b>	Approximately 95 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) and the specific activity is > 2,500 pmoles/min/μg.

#### Appearance

Lyophilized powder.

#### Formulation

Lyophilized from a 0.2 μm filtered solution of 100 mM NaCl, 50 mM Tris, pH 7.5. 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.

#### Reconstitution

It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH<sub>2</sub>O.

**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.

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

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